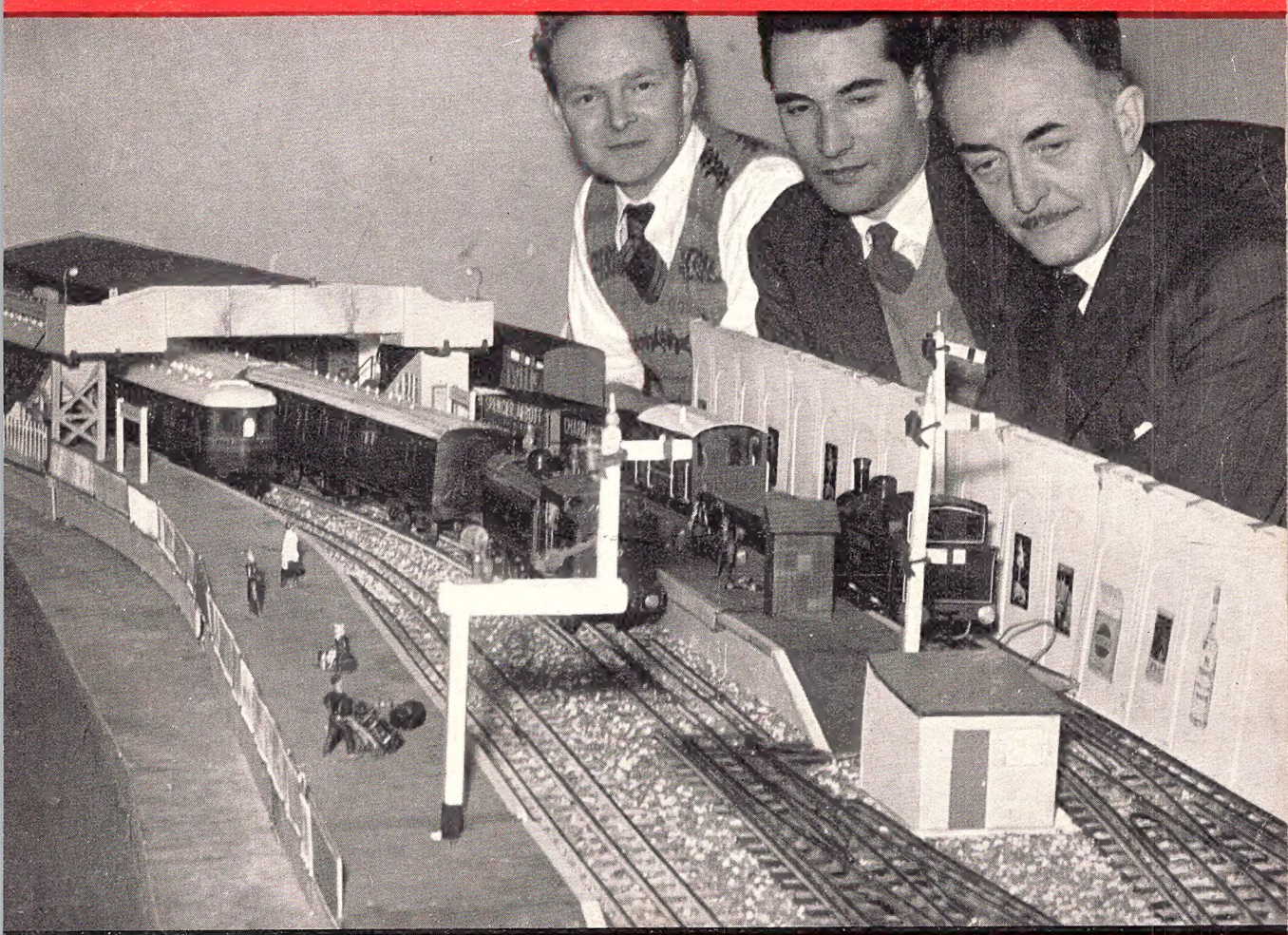
RAILWAY MODELLER

MARCH 1955



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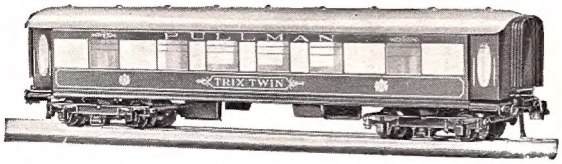

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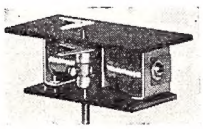

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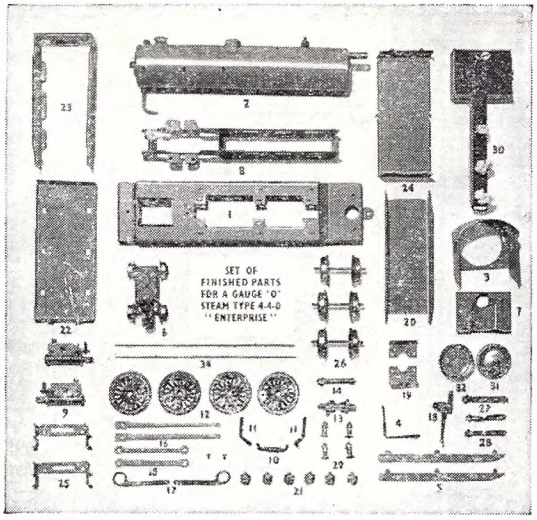

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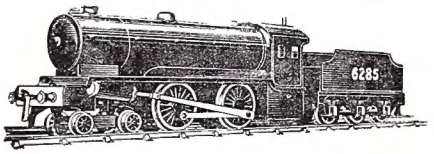

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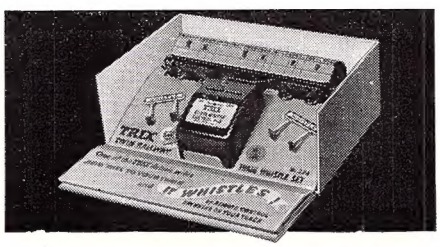

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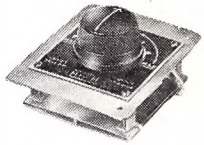

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For the Average Enthusiast Specializing in Small Scale Railway Modelling

VOL. 6 No. 3 MARCH 1955

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S. C. PRITCHARD

Editor
C. J. FREEZER

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NEXT MONTH

As is our custom, we shall be previewing the Model Railway Exhibition in a larger-than-usual issue. In addition there will be articles on a railway in a caravan, plaster modelling and a 2mm. scale Beyer Garratt.

THE LOBBY

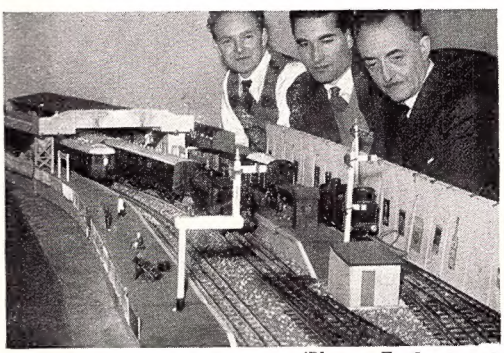
THE recently announced modernization scheme for British Railways marks the beginning of the end for our faithful friend steam, which has served so well for over a century. Although it will be many years before it is altogether eliminated in some areas, it will not be long before it becomes something of a rarity. There is no room here to detail the many proposed changes, and this has in any case already been done in the daily and technical press ; but we can state that the plan is a bold and imaginative one, which should restore our railways to the premier place they deserve.

Doubtless some of our readers may, for sentimental reasons, deplore the disappearance of the steam locomotive, but who are we, who have long adopted electric traction for its efficiency, to criticize British Railways for following our lead and presenting us with a lot of exciting new prototypes into the bargain ? From our point of view this is excellent, as it should create a great deal of new interest ; for many of the new prototypes will be ideal subjects for modelling. For example, the enormous increase in diesel railcars and multiple-unit vehicles from a mere 300 (including steam push-pull units) to 4,600, and their use on important cross-country services, will be especially welcome, as trains of this description are as pleasing in service on our miniature systems as they are useful on the prototype. Again, diesel and electric locomotives offer less imagined terrors to the novice, as their bodies can be built from wood and card.

It is, however, ironic that, we having adopted two-rail electrification on our models, British Railways have now decided to introduce third-rail and overhead collectors in a big way.

COVER PICTURE

Part of the Gauge 1 Association's exhibition layout, with (reading from left to right) S. J. Roberts, J. T. van Reimsdizk and H. R. Lee. This layout will be on show at next month's Model Railway Exhibition.



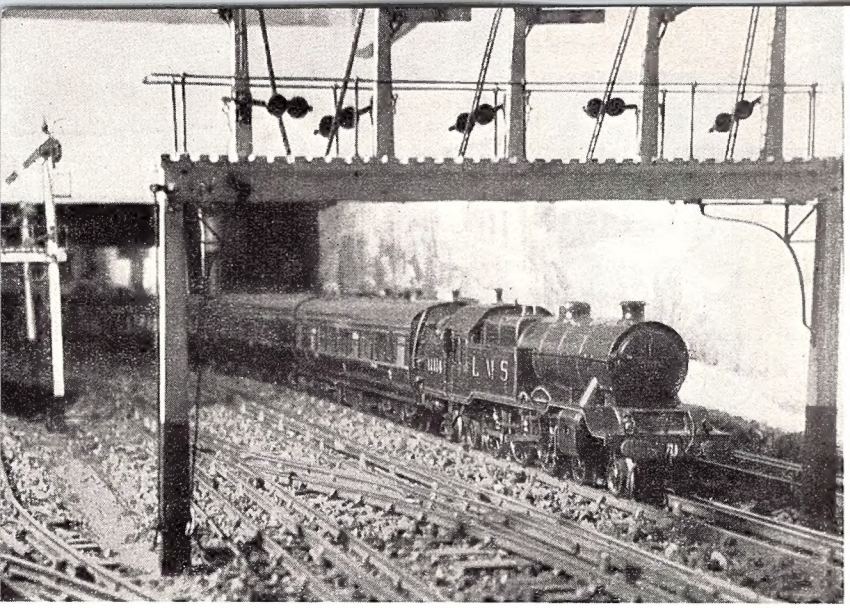
(Photo : E. C. Griffith)

Railway of the Month

Eric H. Halliwell's

FERNHILL

A standard "O" gauge layout with the accent on locomotives of the immediate pre- and post-group era.



Horwich L. & Y. 4-6-4 T on train leaving Central station and running along the straight to Moorhead tunnels.

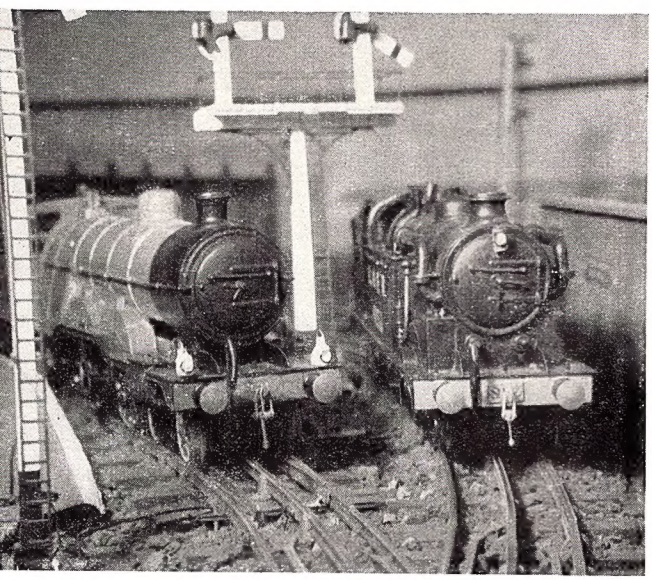
I HAVE recently spent some time taking a series of photographs of the 7mm. scale layout owned by my friend Mr. Eric H. Halliwell, of Shipley, Yorkshire.

Mr. Halliwell's activities in our hobby date from early schooldays and the layout is now extensive and is based mainly on the years of the "grouped" companies we knew prior to nationalization.

The line is continuous, with points and signals operated manually from two cabins. There is quite an elaborate control system, including "series wired" rheostatic equipment, enabling smooth train movements to be effected.

There are some dozen locos of the L.M.S., L.N.E. and G.W. Railways and some twenty or more corridor and suburban coaches of the same companies, including a four-coach period set of G.W.R. suburban clerestories. Goods stock comprises some forty or more vehicles, many hand built, and including open and covered wagons, horse boxes, cattle wagons, lime, cement, timber and grain wagons, oil tank wagons and several nice goods brake vans of grouped companies types.

Front ends! G.N. Atlantic and 0-6-2 T at platform ends of the through main line station.



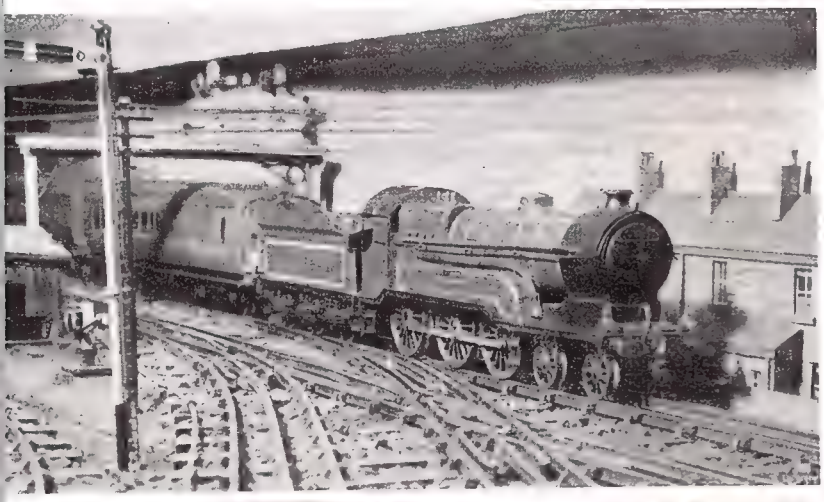
Mr. Halliwell has always been primarily interested in locos, maintaining that his layout is purely an accessory to this interest. I might say that he operated an interesting set of locos of the "grouped" period and is himself at present building a model of the G.W.R. De Glehn compound Atlantic No. 103, "President," which is powered by a standard gauge "O" Romford motor unit and promises to be a most pleasing and nicely built model. When this model is finished and painted I hope to submit photographs to show the results of Mr. Halliwell's efforts.

A number of photographs are shown with these notes, depicting scenes on the layout, one of which especially is illustrative of Mr. Halliwell's fond interest in locos—namely that showing a model replica of the "Plant Centenarian" train, run in 1953 for locomotive enthusiasts, on which trip Mr. Halliwell was present. The two locos on the model train are my own G.N.R. small-boilered Atlantic No. 990, "Henry Oakley," and Mr. Halliwell's large G.N.R. Atlantic, which is a model of the 251 series. The train is Mr. Halliwell's own set of L.N.E.R. corridor coaches in the teak livery.

Although Mr. Halliwell has not a great deal of spare time, he nevertheless extends a friendly invitation to interested enthusiasts to visit the layout, if they will kindly contact us and make arrangements for visiting in advance.

RAILWAY

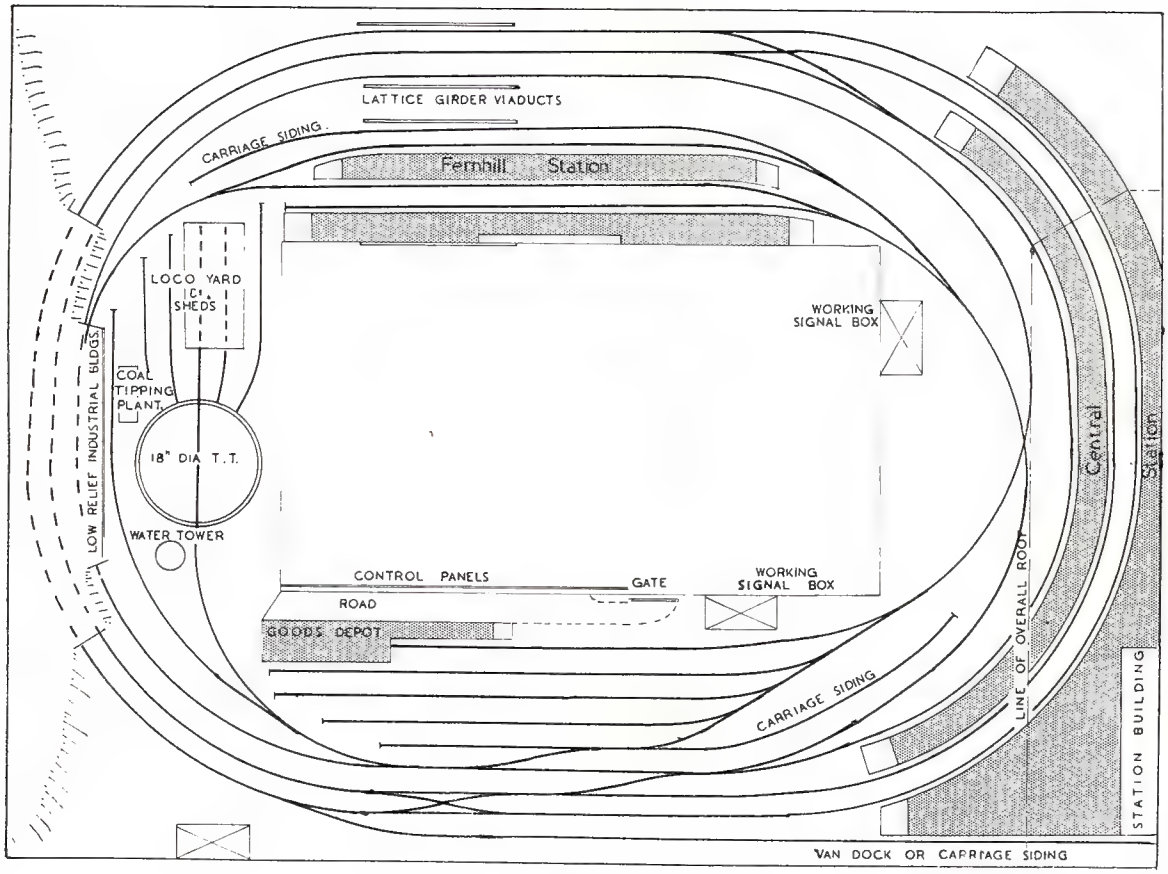
by Alan Shackleton



Top : The " Plant Centenarian " in miniature leaving Moorhead tunnels.

Centre : Ex-G.C. 4-6-0 " City of London " on train approaching Central station.

Bottom : Horwich Mogul on train leaving Central station.



Above : Plan of the Fernhill Railway.

Below : A typical G.W. local of the early 20s.

How to Model

OLD-TIME ROAD VEHICLES

by Edward Beal

IT is many years since I wrote a series of articles on road vehicles for "O" gauge, with some slight reflections on "OO" gauge possibilities. The latter reflections were at the time very restricted owing to the comparative absence of any sort of commercial horse figures and wheels. But in these days the situation is most happily changed, since Britains Limited have brought out their animal and vehicle figures in the 4mm. scale; and there are numerous other excellent supplies in the same dimensions—notably the plastic animals and wheels by Slater and Son, together with Hornby and other ranges of figures. Wheels are still something of a difficulty, if we exclude Britains' tumbril and Slaters' lorry.* But there is one ever-available source of supply for finished wheels of almost any diameter ranging between 15mm. and 24mm. I refer, of course, to the possibility of getting a firm like A. S. Reidpath of Herne Bay to turn off the flanges and clean off the eccentrics from standard locomotive multi-spoked drivers. I have myself had numerous consignments of such wheels, and they are most satisfactory, though I was fortunate above the average in having received a gift from my old friend Norman Fletcher of Seven Kings consisting of scores of specially moulded wheels for cabs, lorries, carts and all manner of coaches.

The modelling of "OO" gauge cabs, hansoms, landaus, station buses and parcel vans will be found fully described in the new book *Modelling the Old-Time Railways,* but those remarks by no means exhaust the theme. Going back to the days of our fathers, there were some extremely intriguing types to be commonly seen on the roads. Many of them were very elegant vehicles, the like of which will never be seen again, such as the four-wheel dogcart, the Stanhope phaeton and the ralli-car, the latter of which I am not too young to remember myself. Each of these types I have illustrated faithfully in Fig. 1, at A, B and C. They are by no means difficult to

* Slaters provide a valuable kit, consisting of wheels, springs and framing.—ED.

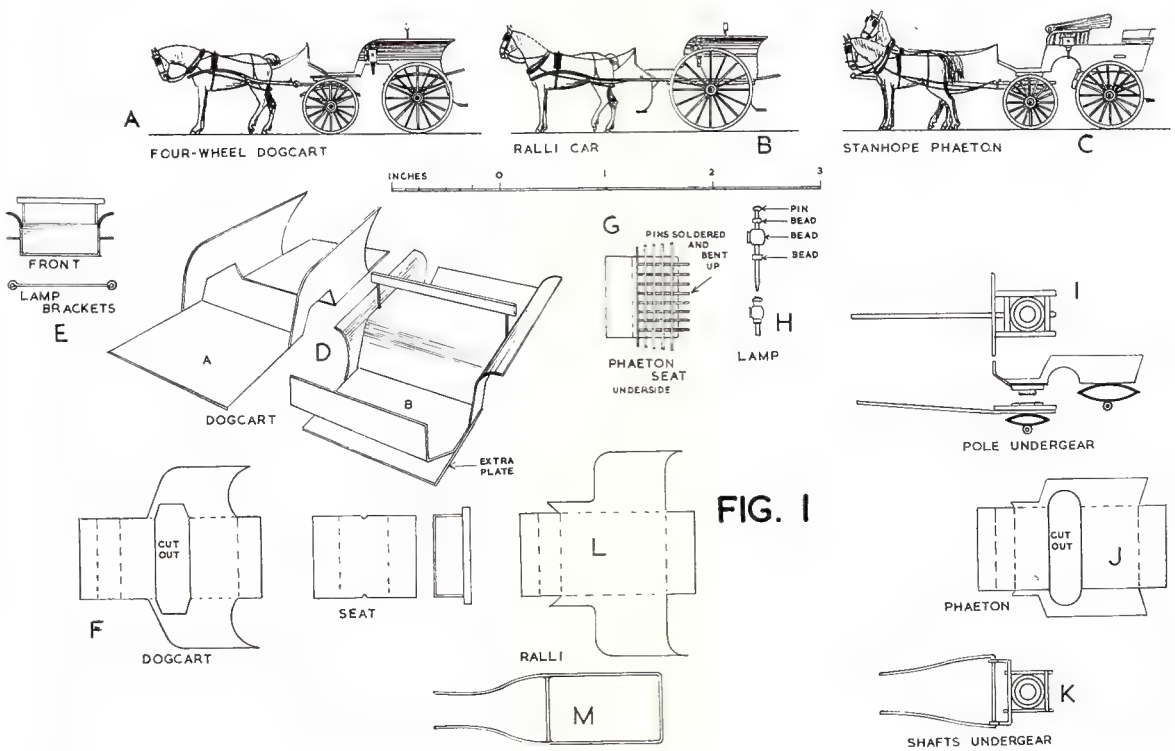
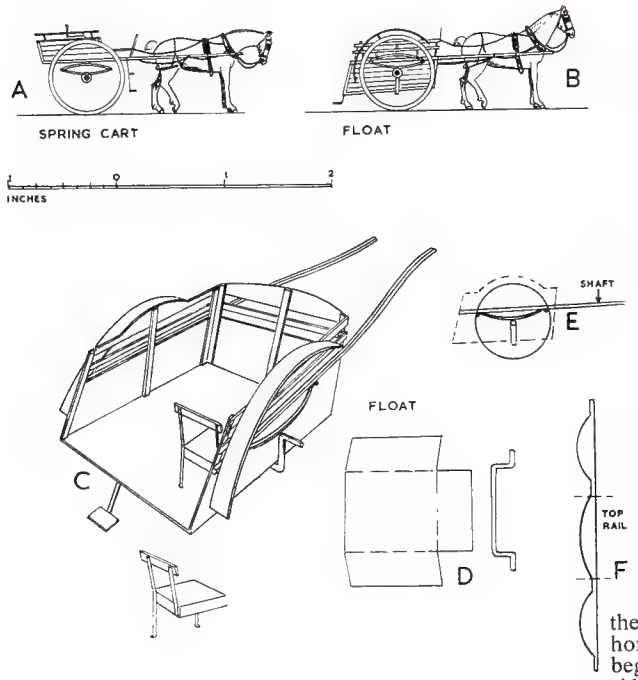


FIG. 1



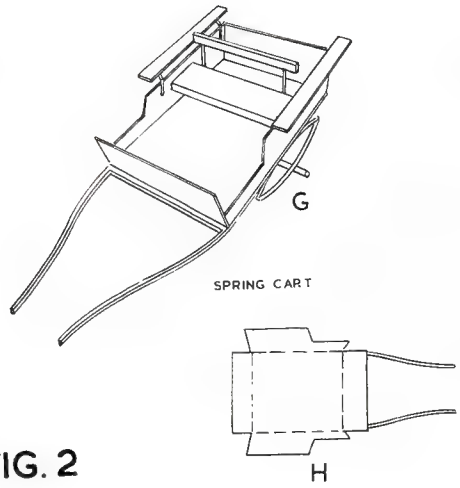


FIG. 2

model in metal if the worker has the merest skill with a soldering iron. Scale parts for the dogcart are given at F, these being cut from tinplate and shaped as at D. The second sketch shows the turnout of the dashboards and splashboards and the fitting of the seat, which is soldered from below. Fit the back-rest on the seat underneath before fitting the seat itself. Note the extra plate which goes under the front of the dashboard base. This takes the fifth wheel, which consists of a snap-fastener of small size, half of it soldered to the body and half to the front axle. You will find this illustrated at I, where it applies also to the phaeton. The dummy springs are easily made and shaped up from wire, though fine flat strip is better, and to these the axles are soldered. Should the wheels be fixtures on the axles, the latter will be slotted through small wire washers soldered to the springs as shown. The principles of construction for all three vehicles are much the same. The phaeton seat, it will be noticed, is railed, and details of this work are given at G. The dummy hood is formed of layers of card. Lamps are an interesting addition (H). It will be seen that they are simple to form.

A couple of more modern vehicles are given in Fig. 2. I am afraid that the "OO" gauge commercial milk-float is, unlike the rest of the new Britains' series, not a copy of the larger model in the original farm series. The design I give is an accurate one for the correct modelling of one of these vehicles. Note that it must have a sunken axle. Here again the work is best done in metal, and dimensioned parts are given at D, E and F. B shows the float itself. Plain wagon strapping may come in for some of the upright members. The ubiquitous spring-cart (A) is a very straightforward job, and its details are given at G and H.

The horses suited to these vehicles may be any of the lighter types, such as Britains' or Slaters' light horses. They will require harness and a little fitting. I begin myself by boring a hole through the body from side to side. Through this hole is slotted a wire with its two projecting ends looped to take shafts, if these are used. Otherwise there is no need for the drilling. Collars are of shaped cardboard glued on, with a piece of fine wire twisted in place for hames. Traces will not be missed in the model, though the bridle should be drawn on after the animal is painted, and the blinkers (small squares of thick paper) glued in place. It follows that the animal will be most effectively given a light colour, such as grey, roan or light bay. The metal portions of the harness should be touched with aluminium paint, along with each point where visible buckles occur. The cushions of the seats I myself covered with green cellotape to represent upholstery. A couple of milk churns should go into the float, and there is an effective driver (seated) in Britains' series.

Various heavy units are the subject of Fig. 3. For these you will require heavier horses. Indeed, for the excellent Britains' tumbril I substituted as much more correct and effective the shire horse, duly harnessed and flat painted. The harness here is a heavier job, and the hames are provided with short lengths of very fine chain which extend from the hames to the belly-band. Here the chains are attached to the projecting wire forming the side loops. These wires hold the hames in place over the cardboard collar, and the addition of a small link of wire across the tops completely holds them. Note that the double harness differs from the single, the chains in this instance being taken right to the swivel-trees, and also from the base of the hames to the pole-end. The wheels for the tumbril will serve also for the farm wagon, with the addition of Slaters' rear lorry wheels for the front.

The flat lorry is quite plain sailing, its underside being shown at E. The farm wagon has shaped sides with panel strips sweated on and trimmed with a file. "OO" gauge rail is used for the top edges. The axles revolve within short lengths of metal tubing (Mer-

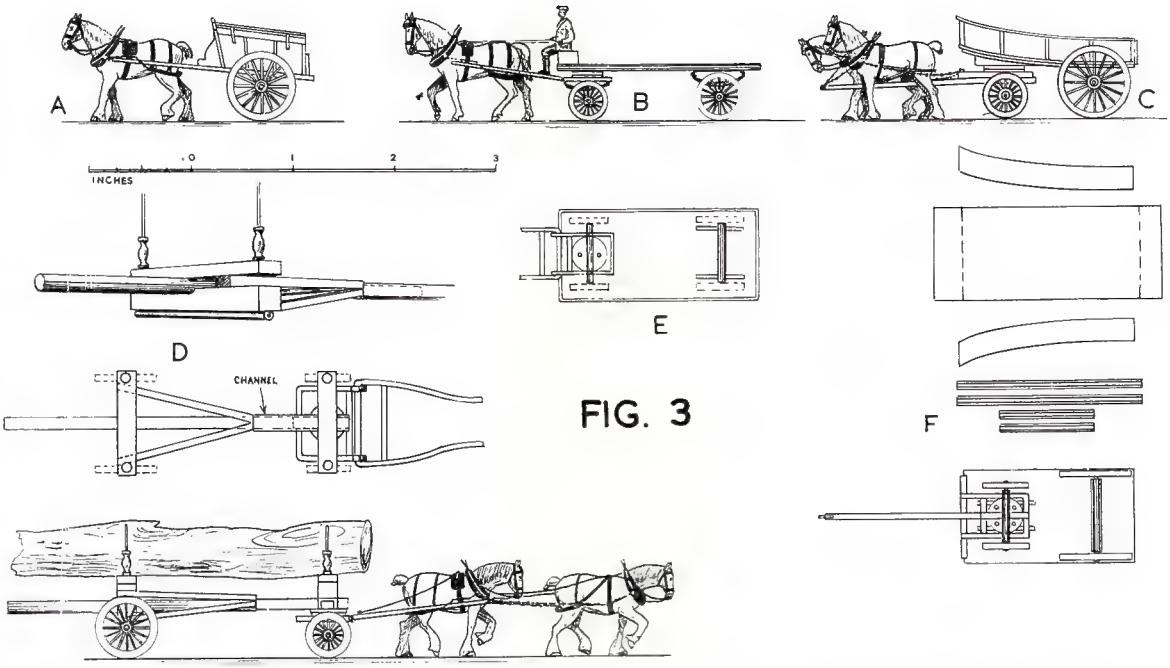


FIG. 3

control) soldered on the underside. The main member of the timber lorry is a length of metal rod or heavy wire; the front end of it is soldered into a short length of brass channel. This gives a squared fitting for the front bolster to rest upon.

We come finally to the one-horse pantechnicon of early days (Fig. 4). This is highly typical and has lettering faithful to the original in accordance with Mr. Roche's large-scale model described some years ago. Its body is formed from a block of wood, a suitable one being that sold by Hamblings for van bodies. This has a ready-formed roof shape. A second block goes underneath this larger one, and is fitted with the various surface details in thin card. The sizes given for the wheels are standard, but may be varied to suit the situation. The lettering can be done with Uno stencils of three different sizes, the work being executed on shaped side covers in suitably coloured paper or card, these being attached when the lettering is done.

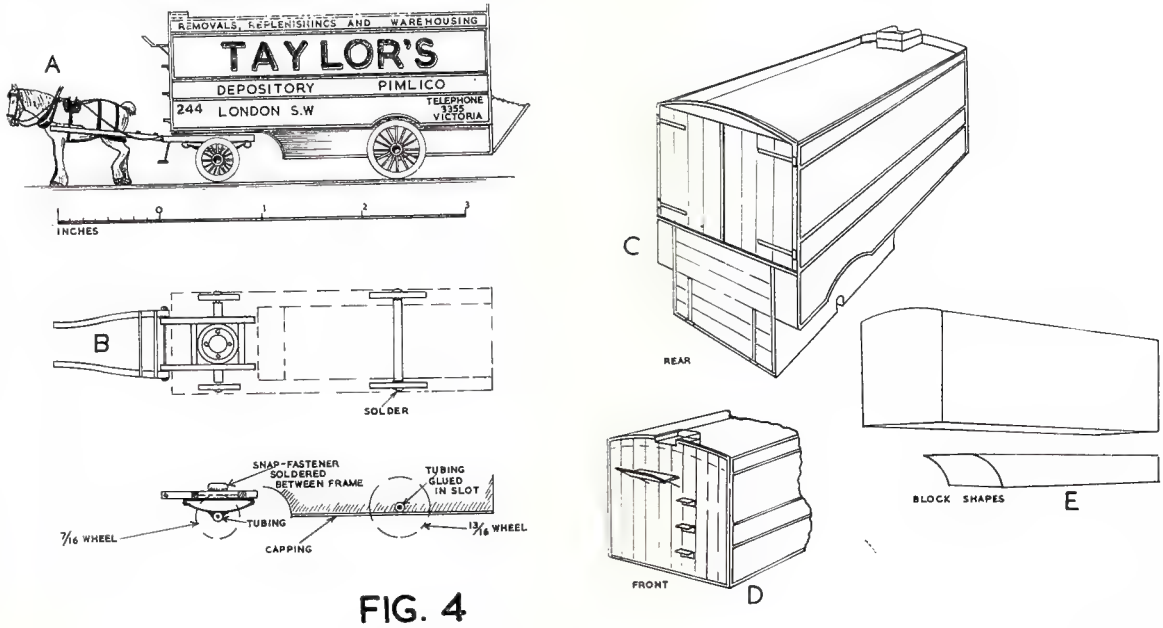


FIG. 4

How to Do It !

BUILDING COACH

WITH SPECIAL REFERENCE TO PANELLED STOCK

THE following notes on the construction of 4mm. scale coaching stock are based on experience gained in building G.C.R. carriages for the Buckingham Branch Line. Although the method is intended primarily for pre-grouping carriages of the older type and for the modeller who likes to build from scratch, nevertheless many of the ideas are equally applicable to more modern stock, and also, in the finishing stages, to models built from kits of parts. There is probably nothing original about the method to be described, but if followed it does produce a coach that is robust and in which the sides, compartments and windows do not become distorted with the passage of years.

The Carriage Sides

Coach construction must always begin with a study of the blue print or drawing of the carriage to be modelled, and if this can be supplemented with photographs or an inspection of the original so much the better. Starting with the sides, the method is to nail together up to six pieces of good quality 1mm. plywood and to mark out on the top pieces the coach side and the position of the windows (Fig. 1). A very sharp pencil about 3H is best for this job. It will be noticed that here all the windows are the same size, whereas generally the windows in the doors are slightly smaller on account of the wooden frames which surround them. This, however, can be ignored for the moment, since this framing will be added at a later stage.

If corridor coaches are being constructed, one of the sides can be adapted for the corridor partition. It is here that the possession of a fret machine can be a great asset, but it is not essential and an equally good job can be done with an ordinary hand frame. Use a very fine saw blade—those intended for cutting metal are quite suitable—and cut the window openings out first, holding the saw upright and keeping all the time slightly on the inside of the line ; the windows can always be made larger by filing to the correct size, but they cannot be made smaller! It is best to cut all the corners round at first and if square corners are called for to finish to the correct shape with a square or triangular file. This job of cutting out the windows is probably the most difficult part of the carriage construction ; the secret is to work slowly and carefully, seeing all the time that every line is at right angles to its neighbour. The last step should be to cut round the sides themselves and to trim up with file and glass-paper.

The Carriage Ends

These can be cut from $\frac{3}{16}$in. wood, and should be 1mm. less in width than the overall width of the coach (excluding beading)—only 1mm., not 2mm., since although the two sides of the coach add up to 2mm. it is proposed to rub away 1mm. during the course of construction, as will be seen later on. The sides of the coach ends can be cut perfectly straight, ignoring for the time being the curve in part of the coach side below the waist (see Fig. 2, where the dotted lines indicate the actual external measurements of the coach ends). It is important to see that both ends are identical and before being passed they should be checked carefully for size and squareness. If the side windows of the coach happen to come close to the coach ends, a slightly different method of procedure will be necessary. This can be done by cutting out part of the coach end as in Fig. 3, or alternatively by building up the end from a piece of 1mm. plywood and two pieces of $\frac{3}{16}$in. wood so that the ultimate shape is as in Fig. 3, these pieces being held together with pins and glue. For ends that contain windows either method can be adopted, but usually where there are end windows the side windows do not come close to the end and the former method of a solid piece of $\frac{3}{16}$in. wood can be used. When the window openings are cut out in the ends, small pieces of perspex or acetate sheet not less than $\frac{1}{16}$in. thick can be forced in and arranged so that they are only just slightly lower than the outside wall of the coach end. A little " Durofix " or similar adhesive will make sure of a good job. Bow-ended carriage ends can be built by laminating a number of pieces of wood and shaping with a file, but with the older type of carriage, for which these notes are primarily intended, flat ends were almost universal.

The Floor of the Carriage

The term floor as used in this connection is rather comprehensive inasmuch as my method of construction is to make the floor of the carriage and the seats out of one piece of wood. Seats and partitions which have been built up of a number of separate pieces of wood glued together have been known to come adrift when the coach has had the misfortune to receive a heavy bump, and then nothing could be done about it. It makes a much more robust job if the carriage floor and seats are integral. A piece of $\frac{3}{8}$in. wood is cut to the same width as the carriage ends and to the length of the coach sides less the thickness of the ends. The positions of the seats and partitions are carefully marked out and the wood between the seats is removed to a depth of $\frac{3}{16}$in. (Fig. 4). If vertical cuts are made it will be found possible to prise out the wood between the seats with a small chisel and finish off with a file. Vertical cuts A (Fig. 4) should be made down the middle of each pair of seats, wide enough to take the 1mm. partition walls. In the case of a corridor coach it will be necessary to cut away a section of the seats as indicated by the dotted lines (Fig. 4). It will be appreciated that a $\frac{3}{16}$in. floor is somewhat thicker than scale, but the robustness of the coach depends on this floor. My view is that it

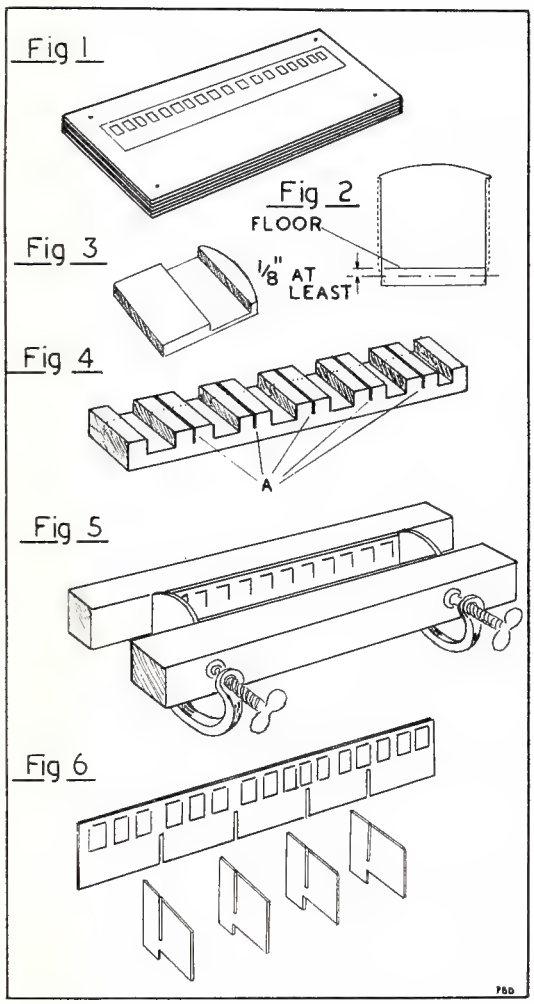
BODIES IN "OO" GAUGE

by Peter Denny

is not worth spending too much time on the inside of the coach, since so little of it can be seen, and if it is seen then the passengers are usually conspicuous by their absence!

Assembling Sides, Ends and Floor

The ends can now be glued and pinned to the base, and again care must be taken to see that they are at right angles to the floor. Test it also on a piece of glass to make sure that it lies flat in every position. This is most important, otherwise the coach will end up by having a permanent twist. My method of pinning pieces of material together is to use ordinary domestic pins tapped in for about a quarter of an inch, nipped off and driven home. The edges of the floor and ends can now be glued and the sides pressed in place; no pins should be used here, but, in order to prevent the sides slipping about while they are being fixed in place, two pins can be tapped into the ends of the sides and nipped off, leaving, however, sufficient projecting so that subsequently they can be withdrawn. When both sides are in place the coach body should be placed between two pieces of stout wood and carefully clamped together to set (Fig. 5). It will be necessary to make little recesses in these pieces of wood to take the heads of the pins. While this is setting the inside can be built up. Strips of acetate sheet or perspex, the length of the carriage, should be cut for the windows; they should be arranged to rest on the seats (or on the floor in the case of the corridor side of such a coach) and they should stop $\frac{3}{32}$in. below the top of the coach sides. The window material should not be glued in any way (this only encourages buckling of the coach sides when temperatures vary) and the fit lengthwise should not be too tight. The material will be held in place by the partitions inserted in the slits between the seats. These partitions can be cut from 1mm. plywood and should just fit in between the window material and again should be $\frac{3}{32}$in. from the top of the coach sides. It is just as well to do this job while the coach is in the clamps, since then it will be impossible to produce a bow-sided coach as a result of pushing in partitions which are a bit too wide. Instead the result will be a perfectly straight-sided coach, which is just what is wanted. In the case of corridor coaches one of the extra sides which should have been cut out can now be suitably cut down so that it will fit against the side of the seats. The partitions should be arranged to intersect with the corridor side, so that the former will still hold the glazing material in place (Fig. 6). The general arrangement of both compartment and corridor coaches in this method of construction should be clear from a study of Fig. 7, where the various materials are clearly marked. The ceiling consists of a piece of $\frac{3}{32}$in. wood, lies on top of the partitions and fits snugly in between the sides and ends of the coach. The thickness of $\frac{3}{32}$in. for the ceiling depends on the space between the top of the windows and the top of the coach side. If the windows are particularly high it may be necessary to make the ceiling of thinner material. This ceiling is important, however, since to its edges are glued the coach sides, but at this stage the ceiling should not be glued in; it can be temporarily held in place with a piece of gum strip on the angle formed by the ceiling and the top of the ends (Fig. 8).



We now come to the point to which all this method of construction has been leading. It will be noticed that so often coaches are spoilt by overthick sides against the windows. Even 1mm. plywood is too thick; coach windows are recessed only two inches at the most, more often one and half inches, and 1mm. equals three inches. A sheet of medium-grade glass-paper should be laid on a flat surface and fixed with drawing pins. The coach body, complete with partitions, ceiling, etc., should now be taken and, having removed the four pins which held the sides in place, can now be rubbed on the glass-paper in the reverse way to a normal sand-paper block. One and a half layers of the plywood should be rubbed away completely. If the work is watched carefully the changing colour of the wood as the first layer disappears indicates whether the rubbing away is proceeding evenly or not and a slight adjustment of pressure will put things right. This will reduce the sides against the windows to a scale one and half inches. The next step is to apply the correct shape to the lower part of the coach. This is done by tipping the coach on its lower edge and continuing to rub on the glass-paper as before. Again, if the work is watched carefully the changing colour of the wood will indicate whether the work is proceeding evenly throughout its length. Part of the ends will, of course, also be rubbed away in the process and the rubbing will probably eat into the floor section before the correct contour is obtained. When constructing the floor it is most important to check how deep this needs to be in order to leave sufficient hold for the coach sides —it depends entirely on the shape of the sides (see Fig. 2 once again), where there must be at least $\frac{1}{8}$in. to which the sides can hold after rubbing away to the correct shape. This is particularly important with corridor stock, otherwise the sides will have nothing to hold on to. The fact that the floor may not be as far down as it should is not likely to be noticed, and in my view by far the most important thing is a sturdy, robust coach. At this point it is best to make provision for any external details that have to be put on, e.g. holes for door handles, etc., although these should not be fitted at this stage. If the coaches are not going to be subject to a lot of handling, my own preference is not to drill any holes but to attach suitable pieces of brass wire with "Durofix" after the sides have been painted. If there are steps on the end a simple way of fixing these is to drill a small hole and enlarge it into a small slit with a piece of fretsaw blade (Fig. 9). Small pieces of metal should then be cut as in Fig. 9a, forced into the slit and the projecting portion on the inside bent over. Handrails can be made of brass wire bent to shape and pushed into holes in the coach ends. Once the inside has been finished, it is inadvisable to drill any holes on the outside which go right through, since then there will always be a deposit of sawdust within the coach. When these jobs are completed the ceiling and glazing material should be removed and the coach thoroughly cleaned up to remove all traces of sawdust, and the inside, including the edges of the window openings, painted a dark brown or black. When the paint is dry the inside can be reassembled and the ceiling glued in place.

The Roof

The space between the two ends should now be filled with layers of balsa wood and rubbed to shape with glass-paper to conform to the contour of the ends (Fig. 10). If the roof is a perfect arc it can be built up independently on a former of a slightly smaller radius than that of the coach roof (a search through the kitchen cupboard will usually produce a tin of the right diameter, although in the case of certain coaches I built the search ended in the toilet!). A piece of cartridge paper should be wrapped round the former and fixed with cellulose tape. This should now be glued liberally, but smoothly (the glue being rubbed over with the fingers). If the glue is thick it should be warmed before use. A second wrapper of cartridge paper can now be put round and it will be found that when the glue is dry the paper will retain its shape and can be stuck in place on the roof foundation. With a three-centred roof, as is often found on clerestory coaches, this method is not possible and it is best to use the roof foundation itself as the former or, if a number of coaches are being built, to prepare a special former. In either case it will be necessary to cut off the surplus paper with a razor blade after the roof has been glued on. This should all be clear from a study of Fig. 10.

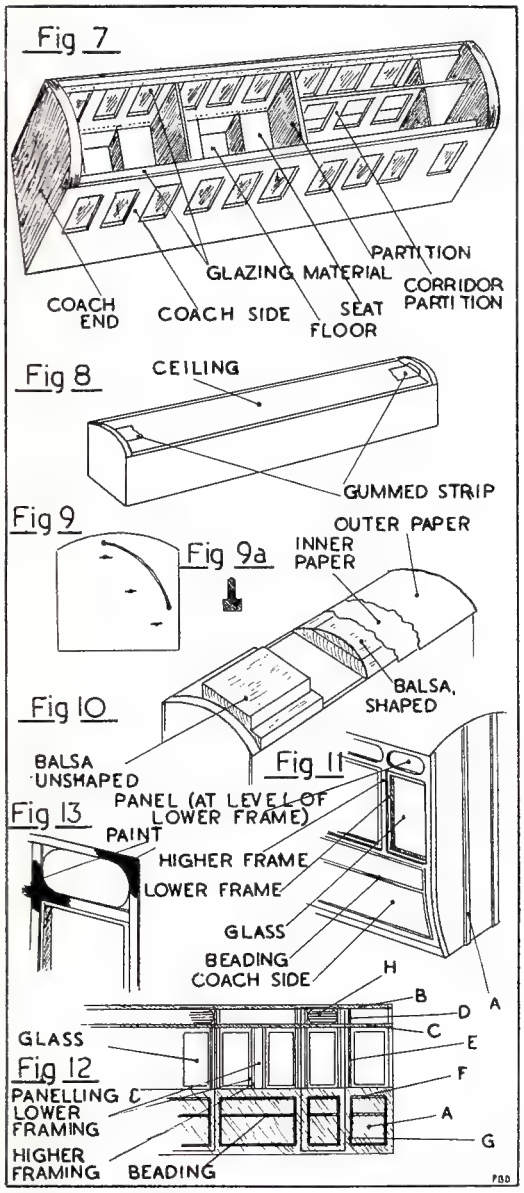
Finishing the Sides and Ends

A careful examination of an actual coach side will reveal that there are various levels or planes, of which the highest is probably the beading and the lowest the glass (Fig. 11). Between these come the various bits of framing and panels. When producing in model form it may be possible to dispense with some of these levels, and I have found that the desired effect can be obtained in most cases with only four levels, namely glass, panelling, framing and beading. The lower part of the coach is often at the same level as the framing, although sometimes it can be best treated as being at the same level as the panelling. It is important to get a good quality parcel strip; this is usually sold in rolls about three inches wide and is liberally covered with glue. This is the material that will be used for all the framework on the coaches, and it has been found in practice that if applied carefully by the method described below and coated with shellac afterwards it will never come off. Let us assume that the side in Fig. 12 is to be panelled up and that there are four levels, viz. (a) glass, (b) panelling and lower framing, (c) higher framing (which is at the same level as the lower part of the coach side), and (d) the beading. The first step is to stick on the strip A, which should be as wide as the coach waist, stopping just short of the lower edge of the window and cutting to the full length of the coach. No difficulty should be experienced in sticking this in place. The next step is to apply the strips B and C. These should be cut from the gummed strip 1mm. wide and slightly longer than the coach side, using a razor blade and a steel ruler. I know of no better way to moisten these narrow strips than with the tongue. Any other method seems to apply just too much water or not enough. When the strip has been moistened, one end should be placed in position at one end of the carriage and held with the thumb and finger while the thumb and finger of the other hand *gently stretch* the gummed strip and place the other end in position at the other end of the carriage. Once in place it should be pressed down gently all the way along, taking care to see that it is dead straight; if it is not so, pull it off and start again with a fresh piece. The vertical pieces D and E between the windows can now be fixed against the strip B, pressed down and cut with a razor blade just at the point where it reaches the strip C. The gummed strip can

then be pulled forward slightly so that the cut portion tucks down immediately on the other side of the strip C and can be continued down and cut again at the point where it encounters the strip A which we put on a few moments ago. This must be repeated all along the line. It may seem a tedious job, but once the knack has been acquired it can be achieved quite quickly. A useful tool is a razor blade held in one of those folding metal holders which have a little tongue sticking out at the top end of the blade. The tongue is extremely useful for pressing down these vertical strips well up against the horizontal strips, while the blade is there ready to cut off at the intersection with the next horizontal bar. The beading on the lower panel (F and G, Fig. 12) will probably require two pieces of gummed strip glued together before being cut into their final widths and it will be found that with these reinforced pieces it is possible to cut strips down to ½mm. These can then be put in place in the same way, commencing with the horizontal lines F and adding the vertical ones G. Before doing the latter operation, however, the pieces on either side of the door openings which are not required should be cut out with the razor blade and prised off before the gum has set. If these are cut back far enough the vertical strips can be added to the edges of the horizontal strips. Door ventilators H can be built up from a number of layers of gummed strip in, say, six-inch lengths and glued together step fashion, cut to the required shape and glued in place. Similar framing can be added to the end "A" (Fig. 11) and to the clerestory (if there is one). When all the framing is on, a coat of thin shellac (made by mixing loose shellac with methylated spirit) should be given to the whole body. This insulates the model against damp. The framing for the door windows can now be put in, and since this is generally almost flush with the glass the method is to scribe a line with a sharp instrument on to the window material, marking the edge of the framing, and then to run a paint brush very carefully around.

Painting and Finishing

If a two-colour scheme is employed in which the framing is a dark colour and the panelling a light colour, and in which the corners of the framing are curved where they adjoin the panelling, this effect can be achieved by painting the panelling first and then, when painting the framing, carrying the paint across the corner in the shape of an arc (Fig. 13). It is not proposed to go into painting at any great length, except to say that my preference is for oil paints, which can be thinned and two or three coats put on. For roofs, however, I have usually used a cellulose paint and have found that if one is quick it is possible to put on two or three coats, but one must be quick, since the brush cannot be applied over the same spot twice. Roof fittings should be added after the roofs have been painted, with the exception of the rain strip, which should, of course, be added before—a piece of double thickness gummed strip. My method of lining and lettering is to use good quality artist's water colours, not student's colours, purchased in tubes and applied with a mapping pen. For some reason I have never been able to get on with a drawing pen and others may also find that they can achieve reasonable lining and lettering effects if a mapping pen is used. Keep the pen clean and wipe frequently to prevent the paint from drying on. A deep chrome will be found the best colour for gold, and with very small lettering such as "First" and "Third" on the panels of coach doors it is best to try to suggest the lettering rather than to try to execute it so minutely that it is not really readable with the naked eye after all the trouble has been taken. Lining can be added with a steel rule and a mapping pen, and small crests, etc., can be built up in the same way. A mapping pen with black indian ink will also be found a useful tool for applying "No smoking" and "Ladies only" to the windows of certain compartments and also for marking out the shape of the door openings and hinges. The final step in completing the bodywork is a good coat of varnish and my preference is for a map varnish; this is perfectly clear and does not tend to change the colour of the paintwork.



LAYOUTS FOR THE MODELLER

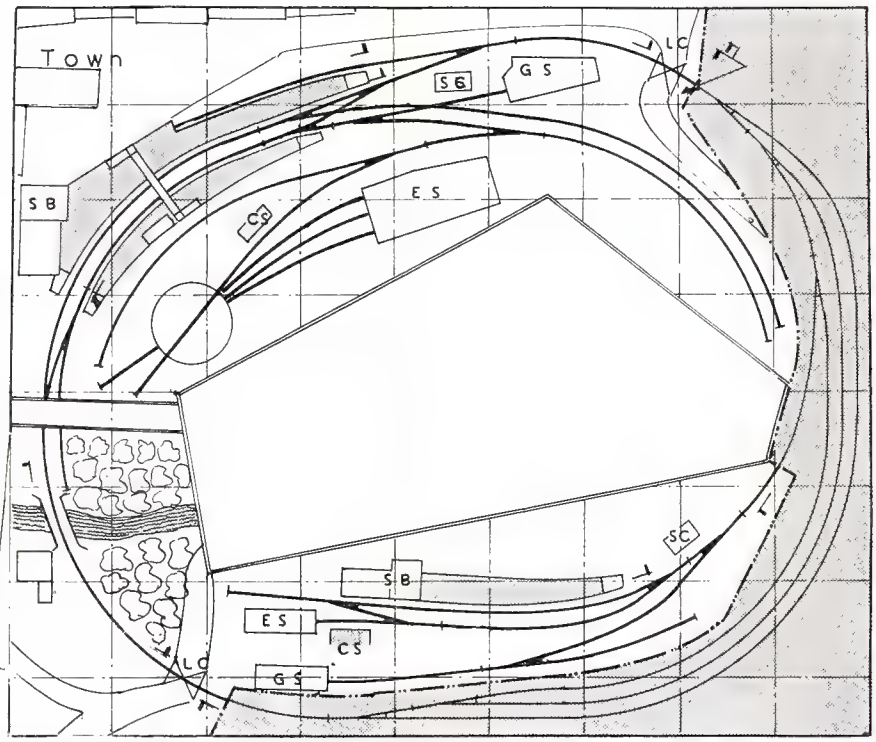
No. 66

Scale for "OO" ½in. = 1ft.

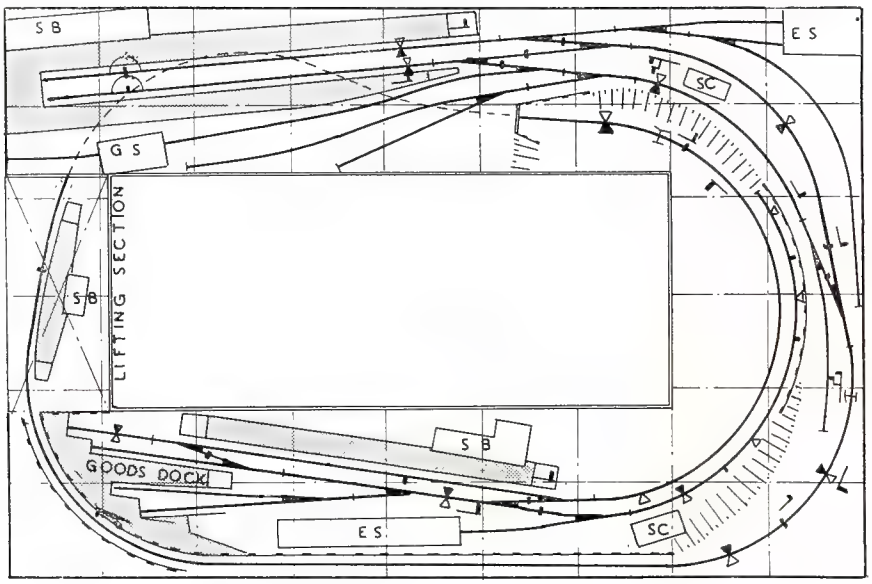
This is a layout for those who like point construction, for it includes a nice tangle of diamond crossings and a crossover on a curve: nothing unduly difficult, just a pleasant exercise in track-laying.

The design was prepared to meet reasonably stringent specifications. It had to be a one-level affair, as Mr. Davis had had trouble with gradients on his first layout. There should be a scenic picture to frame the layout, and curves should be as large as possible. Finally, several buildings from the old layout were to be used, and their shape, originally dictated by the site available on the original system, helped decide the form of the second line.

A through main line with hidden loops was settled upon, with a smaller branch terminus to add to operating interest.



Shaded area hidden behind low scenic background. Design by L. A. Davis.



No. 67

Scale for "OO" ½in. = 1ft.

This layout has been designed to suit a medium sized garden shed measuring 9ft. x 6ft. A point-to-point layout has been adopted with a small halt to add to timetable interest. The two stations are quite different in size and operational characteristics, the smaller on the low level being constructed first.

The main high level station is provided with more accommodation for goods stock, and carriages can easily be stored in the platform roads. It is envisaged that this line would be worked entirely by tank locomotives, thus obviating the need for turntables.

Prototype of the Month

BLANEFIELD

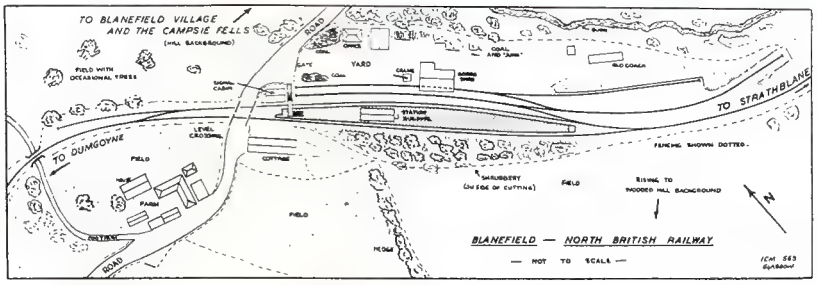
N.B.R.

BLANEFIELD station lies on on the Aberfoyle branch of the former North British Railway, the junction for the branch being at Lenzie, on the main line from Glasgow (Queen Street) to Edinburgh. The line is single track all the way after Lennoxtown. This is perhaps the most interesting station on the branch, many of the others being very simple indeed. The entire branch, and in particular that part of it which runs through the Blane valley (Lennoxtown to Killearn), is characterized by extremely picturesque surroundings, which offer attractive possibilities for the scenic enthusiast. In the Blane valley the line skirts the Campsie Fells, and these hills dominate the scenery on the northern side of the line. The end member of the range, Dumgoyne, appears in some of the photographs.

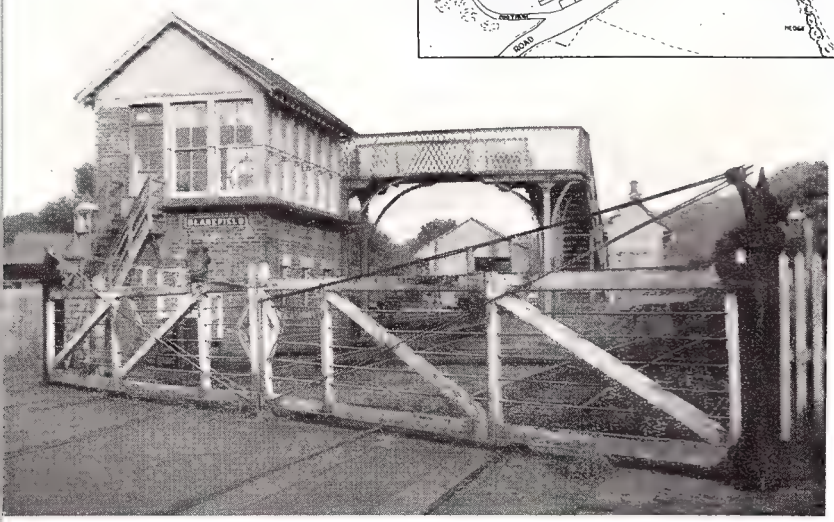
Blanefield station building.

Right : The footbridge with signal cabin behind.

by I. C. McNeill

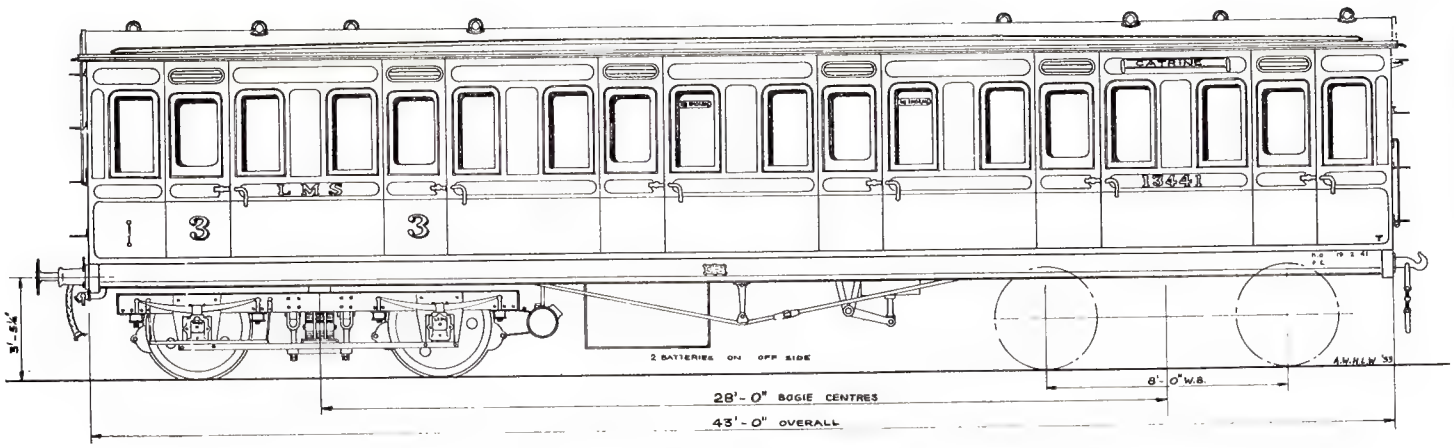


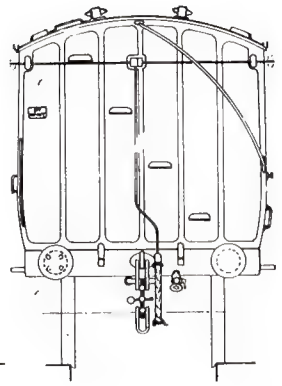
Below : The signal cabin from the level crossing.



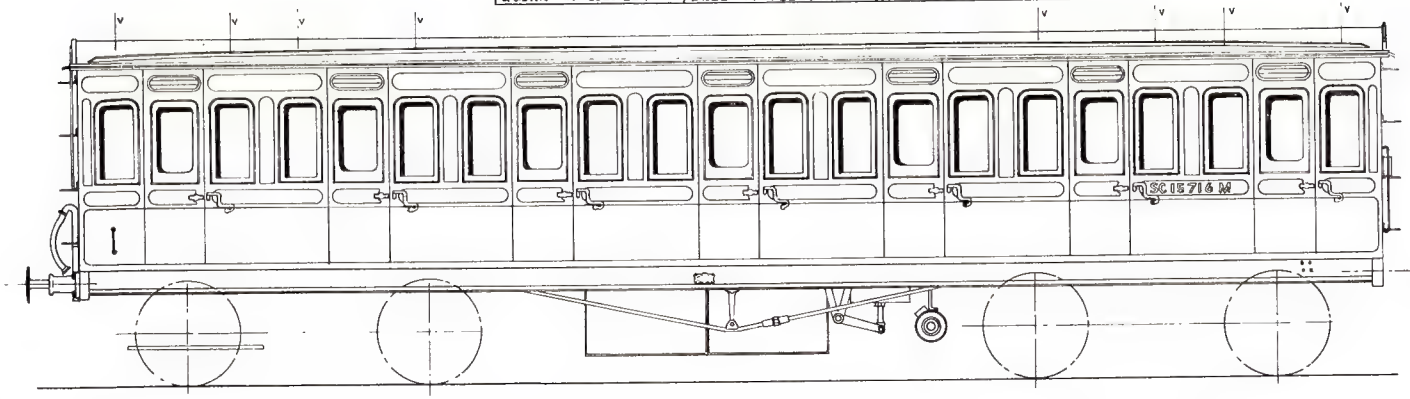
The wooden station building (which is unusually narrow) is on the single island platform, access to which is obtained by the footbridge, this being the only entry to the station for passengers. The facilities for dealing with goods traffic are compact but adequate. The station is signalled for working east-bound trains from both sides.

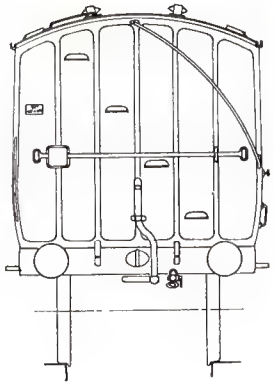
The line was closed to passengers on October 1, 1951. Before the closure, traffic was handled mainly by ex-N.B.R. engines of the C16 4-4-2 tank and J37 0-6-0 classes and Gresley's VI class 2-6-2 tanks. The terminus at Aberfoyle has a small engine shed and turntable.





COLOUR SCHEMES		
G. & S.W.R.	L.M.S.R.	BRITISH RAILWAYS
BODY : DARK RED	BODY : MAROON	BODY : B.R. CRIMSON
U/F : " "	ENDS & ROOF : BLACK	ENDS : BLACK ROOF: GREY
G&SWR IN GOLD LEAF	LINED IN YELLOW	SOME LINED BLACK & GOLD





GLASGOW AND SOUTH WESTERN RAILWAY

FIRST-CLASS AND THIRD-CLASS CARRIAGES (1900 DESIGN)

Scale : 4mm. = 1ft.

Drawing by A. W. H. L. Wright

GLASGOW & SOUTH WESTERN RAILWAY

FIRST-CLASS AND THIRD-CLASS COACHES

by A. W. H. L. Wright

Third No. 15716 at Crookston, June 28, 1953.

ONE of the disadvantages of modelling a pre-grouping railway line is the dearth of information concerning the rolling stock. Some railways have been very well served by groups of keen enthusiasts who considered no obstacle too great in their search for authentic information.

Some time ago the writer commenced collecting information about that very important but little known (or modelled) line the Glasgow and South Western, and the drawings presented are the first daub on the corner of the railway canvas he has decided to paint.

When James Manson went to the G. & S.W.R. in 1891 as locomotive superintendent he found himself in charge of the carriage and wagon departments as well, since these offices were always combined on that railway. For a while he continued to construct the six-wheeled coaches of Stirling's design, but in 1893 he introduced his first bogie coaches of the pleasant design shown in the drawing. Readers who are acquainted with the rolling stock of the Lancashire and Yorkshire Railway will detect a similarity to vehicles on that line.

The six-compartment coach was a first class in G. & S.W.R. days, but the L.M.S. had demoted it to a third when the writer saw it in 1951. The seven-compartment coach was a third in both periods and a fair number of these are still running. Scottish readers should look out for them during the summer months, when many are seen in "excursion" sets (among other even older pieces).

13441 (L.M.S. number) was built in 1900 at Barassie and 13451 of an identical type in 1910. The thirds run from 15610 (of 1900) to 15754 (of 1912). The type was also produced in "brake end" and "composite" versions and these will be described later with the editor's permission. The details of individual coaches naturally vary with the date of construction and subsequent additions of amenities (steam heating and electric lighting). The drawings show the coaches as running at the present time, but "period" modellers should remove the steam heating and substitute gas lamps for the electric ones. It should also be noted that two types of vacuum brake pipe exist (one shown on each end view). Apart from this, the end views apply to both vehicles.

A curious feature is the positioning of the roof ventilators. These were applied only to the smoking compartments, the non-smokers having only the door vents. The bogies are of the "sandwich" frame type, —mostly wooden with metal facings and horns. The frame of the coach is also entirely of wood (shades of the B.R. non-compressible all-steel stock!). One shudders to think what might happen to a train of this stock in a modern collision with a heavy locomotive.

The great advantage of modelling old types of bogie stock is that in nearly every case a shorter train is possible than with equivalent modern stock. A four-car set of G. & S.W.R. coaches consisting of two brake ends, an all-first and a third would measure only 2ft. 4in. overall and would make a splendid branch line rake. If your platforms will not hold that and a "wee bogie" or a 326 class 0-4-4 tank, then 2mm. scale is your only hope!

The writer has had a measure of success with bogies constructed entirely from treated card with or without perspex bushes in the axle guards. Through time these will wear and require replacement, but the replacement is simple and the elasticity and flexibility of cardboard bogies is very useful on not too perfect track. One can also produce any type of sideframe to order and does not have to place a perfect period coach model on a pair of standard L.M.S. welded 9ft. wheelbase bogies because there is no other suitable type available.

SPEED ON THE NORTH DEVONSHIRE

by K. Northwood

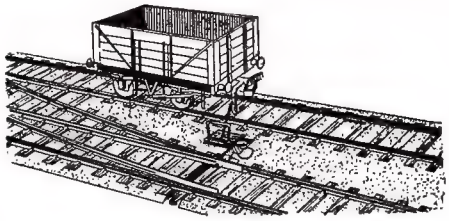
THIS is a picture of an up express taken on the North Devonshire section of the old G.W.R. The train is seen approaching Torreyford and is just coasting past Charman's Bridge junction box at about sixty-five scale m.p.h., and upon looking closely one can see the head and shoulders of the well-known locomotive enthusiast Mr. O. S. Clock leaning out of the cab of locomotive 7013 "Bristol Castle," which is hauling eight coaches. Mr. Clock's face may well appear truly startled, as the express is just completing a very fast run during which it attained a maximum speed of 130 m.p.h. and topped the rise of 1 in 120 at Kenton at no less than eighty-five m.p.h. Although this expert should have been prepared for "fireworks" on this part of our railways, we regret to say he was very badly shaken (figuratively, not physically) at such speeds, in spite of the fact that driver Daring and fireman Firebrand had previously assured him that they could beat "that spam-can Pacific 'Mallard'" any time they liked with No. 7013 (which incidentally is the modern loco of this number, not the old 4082, which had its number interchanged on a sad occasion in 1952).

Mr. Clock's remarks after alighting from this run included the words, "Never will I forget this day—it was a stupendous achievement. Swindon should have warned me that they had doctored this loco. At one time when we were travelling at over 100 I was alarmed to see that we were signalled to go through a facing crossover ahead, but driver Daring just gave the engine another few per cent cut-off with fully open regulator and flung me a reassuring grin. I need not have worried, as the loco went through with ease and round the next bend she rode like a real thoroughbred while still accelerating. In my agitation I dropped my stop watch on the permanent way."

There is some little doubt as to the run being accepted as a world record for steam traction, as another well-known authority has said: "Undoubtedly a wonderful run, but how can a watchless clock claim a record without further proof? I'll not be bullied into believing Mallard's record has been beaten. If it's true then my name's not C. J. Nella."

Another view of this fine "OO" gauge layout, with Eaton Mascot Hall on a parcels train.

Peco Topics



USING BALLAST FOR SCENIC MODELLING

By S. C. Pritchard

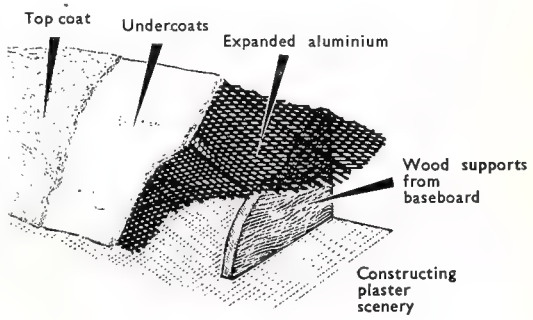
WE have often said of our loose ballast, "can also be used for scenic modelling." This cryptic statement, while wholly correct, does call for some expansion, particularly as the principal use is not readily apparent.

It will be realized that as the cork ballast can be easily stained to any desired hue it can be used wherever it is desired to represent loose shingle, gravel, etc. The ballast is simply glued to the baseboard in the appropriate place, and coloured with paint, water dye or spirit dye. However, we doubt if many enthusiasts realize that it can also be used to produce a very effective representation of rough pasture and fine or coarse grassland.

All the scenery on our demonstration layout at Pecoway House is executed in plaster, and we have found that by mixing cork ballast in the final coat, and subsequently painting with flat oil paints, an extremely realistic field is produced in a very short space of time. No attempt is made to model the individual blades of grass, as this would be virtually impossible in so small a scale; the object is rather to represent the rough finish that clump grass gives to the ground.

The scenery is built upon a framework of wood, roughly cut to the desired profile of the hill, and covered with expanded aluminium. This material forms a very useful base for scenic modelling, as it can be readily cut to any shape with the aid of a pair of shears and will support itself for considerable distances. This is particularly useful when covering tunnelled track. As expanded aluminium is not commonly advertised, we would mention that we obtain our supplies through a builder's merchant.

The foundation can be roughly bent to the desired contours, and is then covered with a fairly stiff mix of Alabastine plaster. We particularly recommend this material, as it does not dry as rapidly as common plaster-of-paris and thus allows more time for modelling. It may be necessary to use several coats of plaster before the final contour is achieved. At the same time any rock outcrops can be modelled in detail in plaster, using small scrapers or pointed knives as trowels and, when the plaster is almost hard, to carve the resulting mass into realistic strata.

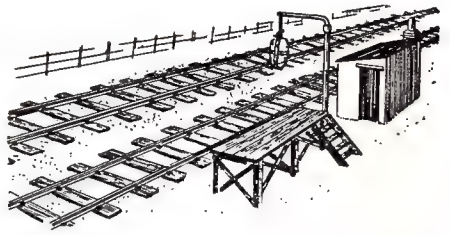


A corner of the Peco demonstration layout, showing plaster scenery. The locomotive is Mr. A. Wright's "Evelyn" (described in the April 1954 R.M.) on the head of a train of Peco Wonderful Wagons.

When the contours are to your liking and rock faces have been modelled, a final mix of plaster should be prepared; once more this should be fairly stiff, as this assists modelling. Loose ballast is now added to the mix and stirred until evenly distributed, a proportion of roughly 50% ballast to 50% plaster mix being generally adopted. This is then spread thinly over the areas to represent grass. As the spreading inevitably tends to flatten the cork into the plaster, while the mix is still in a plastic state the whole surface should be stippled with a stiff brush; the stippling will, of course, increase the broken effect of the surface and thus add to the realism.

Finally, the whole area must be painted. We use flat oil paints, relying largely upon artists' oils let down with turpentine. The first colour is predominantly brown, so that when the green is painted over it the effect of earth showing through in patches will be achieved. It is also possible to mix a body colour in the final coat of plaster, cheap powder colours being quite suitable for this purpose; the great advantage of this arrangement is that should the plaster be chipped it will not show through white. Poster colours may also be used to paint plaster scenery, the final choice depending on personal preference.

READERS' LETTERS



This space is reserved for the free exchange of readers' ideas and opinions

A MYSTERY

Several weeks ago I sent a friend to the local model railway shop with a note on which was written, "One 24mm. Romford insulated driving wheel. He brought back a shiny new driving wheel with squared hole, and I put it in the model railway cupboard until ready to fit coupling-rod pins.

In the meantime December's R.M. arrived, and I read with keen interest the test report on the Hornby Dublo 2-6-4, as I intend to get one and have it converted to two-rail, and I thought, "Ah, well, maybe by then there will be some wheels with 18 spokes, and the counterweight can be shellac-coated card." Then last night I got out the new Romford wheel, but somehow it looked different from the others. "Oh," I thought, "that must be because it's unpainted." But no, there was still something different, so I counted the spokes, and counted them again. Yes, one, two, three, . . . seventeen, eighteen; that was why it looked different—only eighteen spokes, and it was identical to Romford except for the number of spokes.

I took it back to change it, and the dealer had a box of driving wheels—a sort of driving wheel assortment—and I was invited to sort one out myself. The one with eighteen spokes is a mystery, but I have an idea it may have come from Bradshaws.

While on the subject of driving wheels, I recently purchased five 18mm. driving wheels, all of which were nearly 1mm. off centre. Eventually I had to select the three best out of a bad bunch. I asked the dealer for Romford, but in view of the fact that there are now wheels about which look exactly the same I am not certain whose they were.

Some time ago I wrote to your Advice Bureau about mould forming on cork ballast. Well, it may interest you to know that this mould is only temporary, and after a few weeks entirely disappears.

Peterborough. G. D. AUSTIN.

[We don't know where the wheel came from either! Can anyone trace an 18-spoke 24mm. driver? Or could it be that gimmick in science fiction, a warp in the space-time continuum?—C.J.F.]

WE ARE DISTURBED

You are quite rightly disturbed by the ignorant use by amateurs of transformers of doubtful origin, and the possibility of severe shock or even electrocution by tampering with such things. But I would venture to disagree with you that "with a properly made unit no danger exists." There are power units and power units. Some of the cheaper ones are made of cheaper material—naturally. There is always a danger of a cheap transformer breaking down. So I get very alarmed when I see a model unit *plugged into a 15-amp circuit*. 240 volts at 15 amps can kill. *Every model power unit should be protected on the mains side by a 2-amp fuse*. An adapter containing such a fuse can be obtained for a few shillings. Also every power unit should be earthed. If these two rules are carried out, then your statement that no danger exists will be true.

Belfast. STANLEY PETERS.

[I have personally inspected examples of the products of all power unit manufacturers currently advertising in the RAILWAY MODELLER, and would state that, in my opinion, they are perfectly safe in use, even if connected to a 15-amp socket without a lower rating fuse in circuit. The "danger" is actually far less than that presented by an unguarded fire. But, should anyone be worried, a 15-amp circuit has an earth socket, which can be connected, by a separate wire, to the metal casing. A failure of insulation will then blow the 15-amp fuse !—C.J.F.]

GRAHAM FARISH PRAIRIES

Your reply to A.P. of Oswestry also interested me, as I had identical trouble with a Farish Prairie, although it did not illuminate the overload warning probably because I use a higher voltage bulb, which functions on 2 amps, and a larger unit.

Originally I changed the motor and fitted an expensive unit, which still gave me "jack rabbit" running in reverse on the track only. In actual fact the trouble arose from the wheel rims, which owing to the play allowed were able to cause a short circuit in certain positions. The electrical path being rim to frame to rim, this fault was extremely difficult to trace even with an Avo, and I only found it by using a signal generator and the decibel scale. The cure is very simple, Sellotape on the frame, and I am still wondering if the "jack rabbit" reputation of the Prairie was due to this defect, as the original motor works a model boat perfectly.

This information may be useful to A.P. and other modellers.

London. R. R. FRYATT.

PLASTER WALL MODELLING

I was very pleased to read Mr. Martin's letter (December 1954 issue R.M.) and Mr. Hooker's letter (February 1954 issue) regarding the pros and cons of

Alabastine filler and plaster of paris for modelling purposes. This is the way to get our ideas around to other modellers.

As regards Mr. Martin's points about plaster of paris, with the relatively small quantities of plaster which the average modeller uses I do not think that the difference in price will amount to much, I doubt if it could be reckoned at all. As regards the plaster drying dead white, this can be a positive disadvantage where a plaster coating is given to embankments etc. For work of this nature I mix a proportion of burnt umber ground paint powder into the plaster mix, so that when dry it appears of a dull brown colour. Then if any plaster should get chipped off accidentally there will not be a glaring white patch shouting at your carefully tinted embankments. For plaster walling a little ochre mixed in with the plaster gives an off-white tint to the surface of the walls and helps in the final " weathering " colours.

Bolton. J. TOOTELL.

PASSES

Any English rail fans wishing to exchange model railroad passes should read *Model Trains* magazine, December 1954 and January 1955 issues. The " pass interchange department " conducted by editor Andy Anderson gives a list of modellers wishing to exchange passes.

Mar Vista, California, U.S.A.

ANTON F. BRUNS.

A USEFUL MOTOR

In the Advice Bureau of your August number you gave a reply to a correspondent, F.C., Wealdstone, regarding a motor suitable for operating a turntable, advising him to obtain one with a double worm drive. It may be of interest to know that I have just come across a motor of this type forming the motive power of an ex-R.A.F. motor-driven flasher, type E, 24 volts, ref. 5C/2205.

Tested on the usual 12-volt supply, the double worm drive gave a reduction of speed to about one revolution in twenty-four seconds, i.e. with direct drive on to a turntable a loco would be turned in twelve seconds. This may well be as long as many operators would wish to wait for the turning process to be completed, but it could easily be increased, by suitable spur gearing of, say, three to one ratio, to over half a minute. With this unit, voltage reduction using the ordinary controller resistance does not produce any very marked diminution in speed before the motor becomes sticky and uncertain at about 10 volts, so I would not recommend the use of a voltage much less than 12 volts D.C.

The motor is the well-known type CM3, and the unit includes an elaborate radio interference suppressor of coils and condensers. I paid 8s. 6d. for mine, but the prices of ex-R.A.F. units vary a great deal from place to place ; and unfortunately the supply seems to be drying up, so that prices tend to rise. I am proposing to use my unit as the motive power for a traverser, which is a useful alternative to the run-round loop for those who, like me, are short of space. The motor and gears are attached to a substantial die-cast base, which should make it relatively easy to fix the unit to the underside of a turntable or traverser.

Preston. G. PEMBER.

VALE OF RHEIDOL RAILWAY

I have been asked by the public relations and publicity officer of British Railways (Western Region) to make it as widely known as possible that the 1ft. 11½in. gauge Vale of Rheidol Railway, from Aberystwyth to Devil's Bridge, will be open for traffic as usual next summer, contrary to widespread rumours that it was to be permanently closed.

This twelve-mile mountain railway provides the finest way of enjoying the glorious scenery that the Rheidol valley offers, and I would like to appeal to all readers who may be acquainted with the line to tell their friends about it, particularly if a holiday in the Aberystwyth area is contemplated.

Further information will be gladly supplied on request.

Leeds. E. G. COPE.

MERCONTROL TUBING

The following scheme, which is simple in the extreme, may prove helpful to your readers.

My method of fixing Merco tube for the operation of points by this well-known principle is to use a series of Peco joiners as applied to flat-bottom rail in made-up lengths. The Merco tube just clips nicely into a Peco joiner, and the latter can be pinned down to the baseboard through the hole provided. A spot of solder along the top of the joint when the tube is in position makes a firm job of it.

Hitchin. OLIVER P. WILMAN

DECEMBER COVER SHOT

What a pity Mr. Charles Oates—no relation, I hope, of Titus—did not extend the sweep of his artistic brush to the now shivering cow and let her return to the byre. If he leaves her out there he'll freeze her. Too bad!

Edinburgh. W. LOCH KIDSTON.

[Everything's fine. The cow in question has a lead constitution!—C.J.F.]

PROTOTYPE OF THE MONTH

I have recently received the February issue of the RAILWAY MODELLER and would like to say how delighted I was to find on the " Prototype of the Month " page details and photographs of narrow gauge track instead of the everlasting branch line stations. I suggest that you use this page monthly to illustrate and describe different aspects of prototype operation, both narrow and standard gauges, which would be of benefit to the modeller.

I have not yet got a layout myself, but hope to start building one in the near future. Meanwhile I am working on rolling-stock, both passenger and goods, and find your book of immense value, having been a regular reader for several years.

Newbridge, Eire. NOEL KERLEY.

The R.M. visits

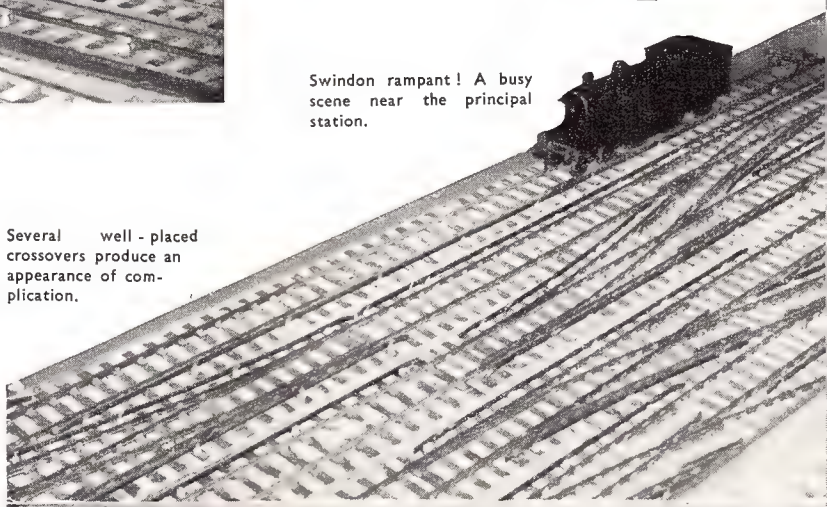
THE EXETER

SOCIETY OF MODEL ENGINEERS

LAYOUT

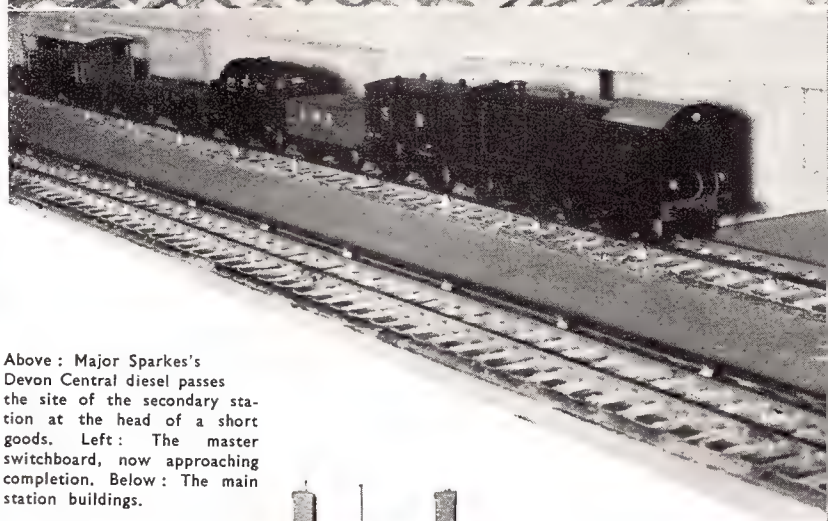
EARLIER this year we visited the clubrooms of the Exeter Society of Model Engineers to inspect their new "O" gauge layout, which is rapidly nearing completion—as far as any system can be complete. It is based on the well-known B.R. layout, and is designed so that it can be used as a centre-piece in the society's exhibitions. Standard "O" gauge track is used throughout, and outside third collection, these being the standards used by the majority of the members.

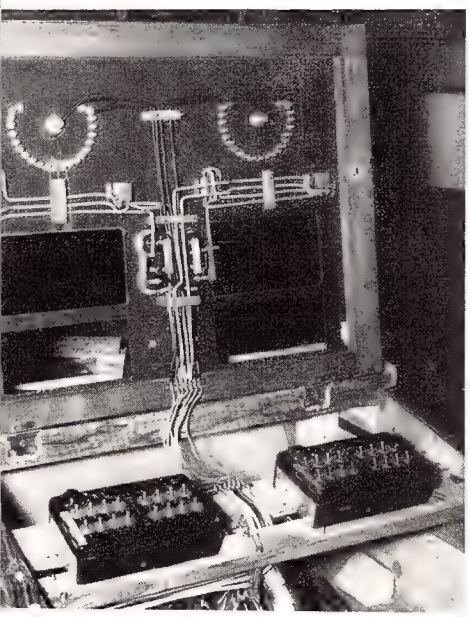
As one would expect, G.W. and Southern prototypes predominate, but for us the most interesting locomotive on view was the massive free-lance diesel from the late Major Sparkes's Devon Central, seen in the adjacent photograph.



Swindon rampant! A busy scene near the principal station.

Several well-placed crossovers produce an appearance of complication.





Above: Major Sparkes's Devon Central diesel passes the site of the secondary station at the head of a short goods. Left: The master switchboard, now approaching completion. Below: The main station buildings.

CLUB NOTICE BOARD

featuring popular personalities and society news

Personality Parade No. 39

G. H. Platt

Manchester M.R.S., Model Railway Club, Historical Model Railway Society

Neither the Manchester nor the London exhibition would seem complete without Geoff Platt somewhere in the vicinity. For many years he has been a stalwart member of the northern society, and since his move south in 1947 he has been equally popular in the Model Railway Club.

His chief interests are the collection of prototype information and the building of pre-grouping equipment. His main interest lies in the L.N.W.R., but he does not let his affection for the premier line blind him to the fact that there were other railways worthy of study. He is a vice-president of the Manchester M.R.S.

In private life he is a university lecturer on civil engineering and is married, with two sons, the eldest of whom is at present following in his father's footsteps. His other interests include music and photography.

NOTES AND NEWS

Copy for these columns must be received five weeks before publication.

NORTHOLT MODEL RAILWAY CLUB

Club meetings continue to take place on Wednesdays and Fridays and considerable progress has now been made with scenic effects on the main stud-contact layout.

A room has been set aside for the construction of an independent two-rail "OO" layout and the hon. secretary would welcome new members who prefer this type of electrification. There is plenty of scope for an additional layout on these "lines."

Please contact the hon. secretary, Mr. R. G. Turner, 45 Craven Avenue, Southall, Middlesex. Telephone Southall 4265.

SOUTHPORT MODEL AND ENGINEERING CLUB

Activities started with a swing in the new year with the annual general meeting on January 6.

Two members of our team of old stalwarts were re-elected to office, Mr. A. Moore to the chairmanship and Mr. D. Sephton to the treasurership and as exhibition manager. It has been found necessary to appoint additional officers and technicians in anticipation of the expansion now necessary for the 1955 exhibition.

We regret to announce that our very active president, Mr. J. A. Perkins, the area fire brigade chief, has been obliged by pressure of service commitments to resign from active office, but the blow has been softened by the fact that he remains with us as a life president.

"OO" enthusiasts will be interested to know that the new layout has nearly 500 feet of running track. Secretary: D. A. Southam, A.B.S.C., A.C.V., 30 Kensington Road, Southport, Lancs.

NORWICH AND DISTRICT SOCIETY OF MODEL ENGINEERS

The above society meets on the second Wednesday of each month at the Assembly House, Theatre Street, Norwich, at 7.30 p.m.

At the meeting to be held on March 9, 1955, an informal discussion by the members of the society modelling in "OO" gauge has been arranged.

New members, whatever their modelling interests, are most welcome at any meeting. The annual subscription is 5/-; junior members (under 21) 2/6.

HISTORICAL MODEL RAILWAY SOCIETY

Mr. C. Steptoe will give a talk entitled "Reminiscences of the London, Brighton and South Coast Railway" to the Historical Model Railway Society at 7 p.m. on March 7, 1955, at the headquarters of the Stephenson Locomotive Society, 32 Russell Road, W.14.

ICKENHAM AND DISTRICT S.M.E.

The absence of news of our activities for so long has been occasioned by the fact that nearly all our activity during the past year has been centred around the building of our own permanent headquarters. In spite of the recent bad weather, work has been progressing sufficiently to anticipate a formal opening in the early summer.

Plans have been approved and work has started on the building of a permanent "OO" gauge two-rail track around the inside perimeter of our headquarters. New locos and wagons are now in the course of construction, and it is hoped that the "OO" section members will have a completed layout for the formal opening.

Interested persons will be welcome at the society's headquarters, situated at the rear of the Coach and Horses, Ickenham, any Friday evening. Full details will be sent on application to the hon. secretary, Mr. L. A. Gross, 16 Thurlstone Road, Ruislip, Middlesex.

NOTTINGHAM MODEL RAILWAY CLUB

In order to accelerate completion of our 7mm. and 4mm. layouts it has been decided to hold track nights on Wednesday evenings in addition to those already held on Tuesday and Thursday evenings.

The first Tuesday in each month will continue to be devoted to lectures and general discussions as at present. We are hoping to arrange the following in our programme for 1955:

A talk by Mr. Thorpe, curator of the Midland Railway section of the Derby Museum.

A lecture on television interference and its suppression by a Post Office engineer.

A light-hearted debate: "The operation of model railways is a childish occupation."

CANTERBURY AND DISTRICT MINIATURE RAILWAY CLUB

The above club has been formed and meetings are held fortnightly on Tuesdays at Vernon Cottage, Babs Oak Hill, Sturry, the address of the hon. secretary, M. E. W. Maplesden-Young.

MARCH MEETINGS

BIRMINGHAM MODEL RAILWAY CLUB
3 Twenty Years of "O" gauge Garden Railways—H. Woodward.
9 Track Night.
17 The G.W.R. in 1905–10 — J. N. Maskelyne.
23 Track Night.
31 Annual General Meeting.

HULL MINIATURE RAILWAY SOCIETY
3 Servicing Electric Model Railways—R. Every.
10 Track Night.
17 Scenic Effect—J. W. White.
24 Track Night.

LEICESTER MODEL RAILWAY GROUP
15 The Talyllyn Railway—R. E. Tustin.

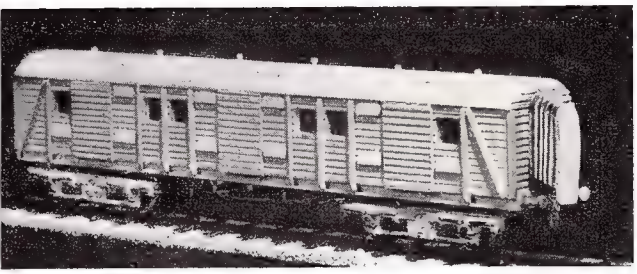
MANCHESTER MODEL RAILWAY SOCIETY
12 2.30 p.m. Visit to L. & Y. signalling school at Manchester Victoria.
6 p.m. Annual Dinner.

MODEL RAILWAY CLUB
3 The Collapse of the Tay Bridge in 1879—T. S. Lascelles (at Caxton Hall).
17 Track Night—L.N.E.R.
24 My Railway Films—C. J. Barnard (at Caxton Hall).

WIMBLEDON MODEL RAILWAY CLUB
9 Some Irish Byways—R. K. Kirkland.
23 Discussion: Current Collection Methods and other Problems.

NEWS AND VIEWS OF TRADE INTEREST

TRADE

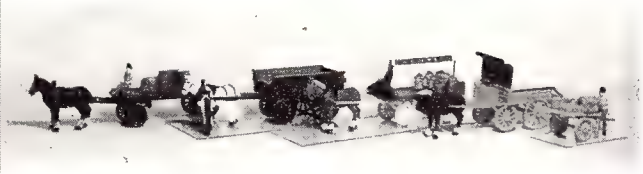


CCW S.R. passenger luggage " C " type kit assembled.

CCW " C " TYPE KITS

The new range of " C " kits recently introduced by CCW Productions provides the modeller with all he requires to complete an unpainted vehicle. The bodies are fully up to the standards we have grown to expect from the manufacturers, and the individual components for completion are the same as those advertised by them in their catalogue. It will be realized that such a kit does save the modeller a great deal of trouble, as he no longer has to purchase, in addition to the body kits, the necessary underframe and other components. This will particularly assist beginners, who may have difficulty in deciding the correct components required.

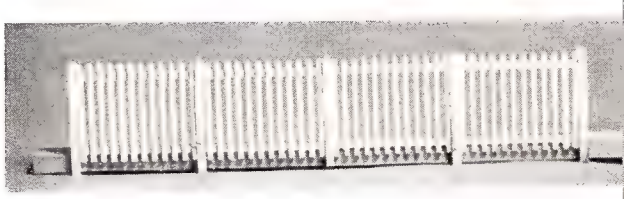
We heartily commend this move and look forward to more kits in this range.



A group of road wagons built up from Slaters' components.

HORSE WAGON COMPONENTS

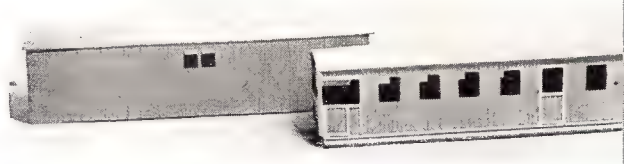
As will be seen from our illustration, some excellent miniature vehicles can be easily constructed from the range of components available from G. N. Slater, the well-known manufacturers of the Huminiature range of plastic figures. The range comprises wheels, springs, shafts, wagon floors and turntables, as well as the famous Slater horses, which set a standard of realism that would be difficult to surpass. These components are particularly useful in the construction of old-time vehicles such as those described by Edward Beal elsewhere in this issue.



Slaters' station fencing.

STATION FENCING

Another useful item from Slaters' is the plastic fencing illustrated on this page. This is an accurate model of the close-paling fence commonly to be found on station platforms. It is moulded in white plastic and therefore need not be painted. It is available for both " O " and " OO " gauges, and in addition to its official use behind platforms we would suggest that the " O " gauge fencing would make an excellent factory boundary in " OO," while the " OO " fencing could be used in a miniature " O " gauge ornamental garden. No doubt our readers will soon discover other uses.

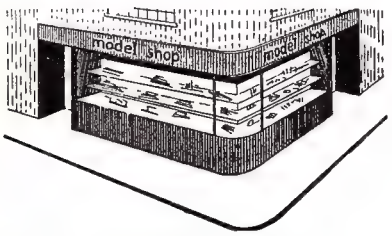


Ratio Covfit and L.N.W. breakdown kits assembled.

RATIO WAGON KITS

The Ratio wagon kits are built on a somewhat different principle to their well-known coach kits. All parts with the exception of the floor, and false roof where applicable, are made from 1mm. birch ply of fine quality. The ends and sides are joined together by halved joints, thus ensuring considerable strength as well as making for ease of assembly, as the component parts hold together while the glue is setting. The roofs are made from two thicknesses of ply, pre-

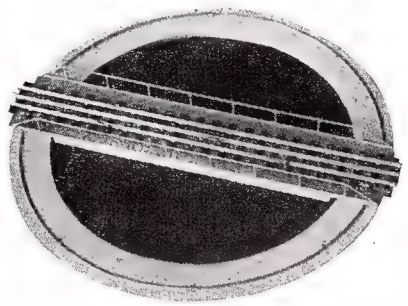
WINDOW



formed to the correct profile. This method of construction produces a strong yet light roof, but has the slight disadvantage that two holes must be made in the material. These, however, can be readily filled on assembly. The floors are milled from a single piece of wood and include the appropriate solebars, and in the case of the ex-L.N.W. breakdown van the correct footboards. Angle, T and flat strapping are provided where necessary.

These kits are accompanied by a comprehensive instructional sheet, including on the reverse line drawings of the entire range of vehicles available from Ratio in the particular group chosen. This is a particularly happy idea, as it enables the modeller to assemble his kit correctly, and gives him a preview of the other vehicles in the range.

Ratio have also introduced an underframe kit for four-wheeled vehicles. This consists of a pair of U-shaped metal axle-guards to which plastic mouldings are attached. The wheels run on pin-point steel axles, between the metal guards. This form of assembly obviates the need for precise alignment of axle-boxes and simplifies the assembly, as it is necessary only to square up the metal base, rather than to juggle with the axle-guards themselves.



Tyldesley and Holbrook's " OO " turntable.

" OO " GAUGE TURNTABLE

Messrs. Tyldesley and Holbrook have recently introduced turntables for " OO " gauge, which can be obtained with track to suit both scale and proprietary systems. As can be seen from our illustration, the tables are particularly pleasing and neat structures of the surface type, needing no well sunk in the baseboard. They are supplied wired ready for use.

Messrs. Taylor & McKenna wish us to announce that Mr. R. Dudley Dimmock has recently joined their organization. They also wish to apologize for the delay in publication of their new catalogue and assure all readers who have applied for copies that their orders will be attended to as soon as possible.

BOOK REVIEWS

BRITISH RAILWAY HISTORY, by C. Hamilton Ellis. (Allen and Unwin, 30s.)

It would be difficult to imagine an author better suited to the monumental task of chronicling the long and complex history of our railway system than Hamilton Ellis. His particularly happy phrasing can present a clear picture of the more complicated manœuvres of the old companies in a few words. where others might expend several paragraphs and succeed in the end merely in confusing the reader. This is not a book that can be assessed quickly, for its very scope places it alongside the major histories of McDermott and Grinling; but, unlike these classics, Hamilton Ellis has chosen the entire field of the British railway system. Time alone will tell whether this is to be Mr. Ellis's greatest work.

This is to be but the first volume of the history, and takes the story from the early days of railway construction down to 1875. In this half-century were fought the stormiest battles of the board-rooms, when individual companies attacked each other with a ferocity and, on occasions, a lack of scruple that would have met with the unstinted approval of any buccaneer. As might be expected from those who know his earlier works, Hamilton Ellis makes the most of his opportunities. Nor are the engineering achievements forgotten. Civil engineer, mechanical engineer and architect receive their due recognition. The illustrations are well chosen; several indeed are new to us and none are in any way hackneyed or commonplace. Only one colour plate from a Hamilton Ellis painting is included, this being the frontispiece, an excellent study of Guildford station on the L.S.W.R. in the 'seventies. A particularly pleasing feature is the extensive note on the illustrations to be found at the end of the book. This could well be copied by other historians, as could Mr. Ellis's restrained use of footnotes and references, which are included only where they are of use to the reader. All too often we gain the impression that an author includes the references merely to show how many books he has read on the subject.

The production throughout is to the high standard we have grown to expect from the publishers. We can thoroughly recommend this book to our readers as a perpetual delight, even on the twentieth reading.

THE LANCASHIRE AND YORKSHIRE RAILWAY IN THE TWENTIETH CENTURY, by Eric Mason. (Ian Allan, 25s.)

There is a sad tendency to ignore railways which did not form part of a great trunk system. No line has suffered more from this than the Lancashire and Yorkshire, which, despite its unfortunate beginnings that inspired Ahrons to one of his finest *mots*, became in the twentieth century one of the best rail-

(*Continued on next page*)

ADVICE BUREAU

The Bureau is at your disposal to assist you with your problems. The service is free, individual and personal, but we reserve the right to publish any query we consider to be of interest. The advice given is based on the experience and opinions of our staff.

Queries should be addressed to the Peco Technical Advice Bureau, Pecoway, Station Road, Seaton, and should be accompanied by a S.A.E. and coupon on page ix. We regret that we cannot prepare special designs for individual readers.

Perhaps you could advise me on point operation by means of bowden cables.

I have tried operating points by a solenoid motor, but I want to compare the cost with bowden-operated points.

I presume a spring has to be used to return the points to their original position before the lever is pulled.

J.V.R.C., NORWICH.

Bowden cable consists of a flexible steel wire passing through a flexible sheath and can be curved to the location. It transmits both pull and push and needs no special pulley or return springs. Various lengths of cable can be bought, a source of supply being cycle shops, where such cables are supplied for brake operation.

A substantially similar but neater system is Hamblings' Mercontrol system, consisting of thin copper tubing through which piano wire is passed. For further details of this system we refer you to Messrs. Hamblings' catalogue.

Another convenient system is the car choke control, which consists of a push-pull knob coupled to a length of bowden cable.

We went into this subject at some length in Peco Topics in the RAILWAY MODELLER of March 1954.

I am running Hornby Dublo locos on my layout, using nickel silver rail, and am troubled with dirty wheels on the locos, although I keep the running rails clean. Can you tell me if there is anything I can purchase to nickel or silver plate the wheels of the above locos?

L.B., TONBRIDGE.

We regret that we cannot offer any cure for this state of affairs, and that a regular cleaning appears to be the only answer. While plated wheels do not pick up the dirt to the extent that the alloy wheels do, we do not know of any plating fluid. Electro plating must be carried out with the correct depositing apparatus, and would involve in this instance the removal of the wheels from the chassis.

BOOK REVIEWS (*Continued from previous page*)

ways in the country. In saying this, we realize we run the risk of enraging several of our Manchester friends, who have frequently pointed out that the "Lanky" was the best without any doubt.

Mr. Mason, who was intimately connected with the railways for many, many years, has written a delightful book on the line. Beginning at Manchester Victoria, the centre of the line, he first takes us on a trip around the system and then proceeds to analyse the train services and the exploits of the individual locomotives in their classes, and the men who worked them.

The book is well illustrated and contains several line drawings of particular interest to modellers.

RAILWAY REVOLUTION, 1825—1845, by M. Greenwood. (Longmans, Green and Co. Ltd., 2s. 6d.)

This inexpensive, well-illustrated book is apparently one of a series intended primarily for school children. It deals with the formation of the Liverpool and Manchester Railway in particular, and the early growth of railways up to the collapse of the railway mania in general. The majority of the illustrations are taken from contemporary sources and the general standard of accuracy is highly commendable. This book would make an excellent present for the younger enthusiast.

LOCO REVUE.

Our French contemporary, *Loco Revue*, has from the January 1955 issue added to each illustration a caption in English and included in all overseas issues a mimeograph abstract of its contents in English. We feel sure that those of our readers whose command of the French language is none too sure will welcome this innovation, while our younger readers may find this a more palatable way of studying the language than the school text-books.

"OO" GAUGE LAYOUT AND DESIGN, by E. F. Carter. (Percival Marshall, 8s. 6d.)

This book deals extensively with prototype practice as it affects layout planning, and as such is to be recommended to workers in all scales, for the gauge has no bearing on track design. However, the great majority of the plans are not drawn to scale and do tend to give a false impression to the beginner.

FOUNDRY WORK FOR THE AMATEUR, by B. Terry Aspin. (Percival Marshall, 5s.)

We can cordially recommend this book to all large-scale modellers who find the range of commercial castings too limited for their taste. The entire process of foundry work, from the preparation of the pattern to fettling the casting, is described in simple, practical language, and clearly illustrated with excellent line drawings by the author.

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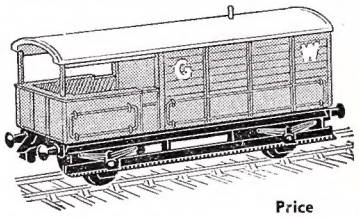

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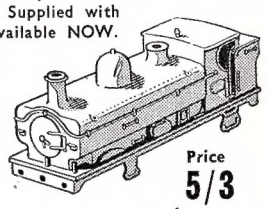

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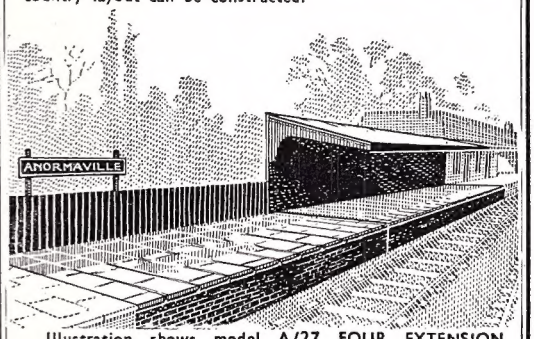

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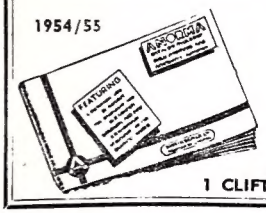

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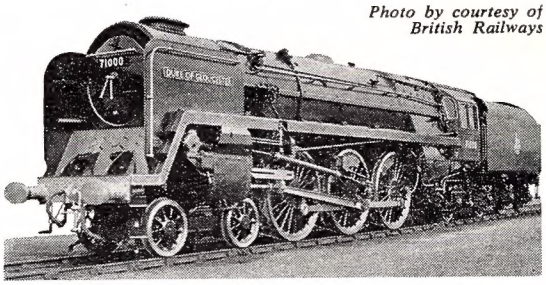

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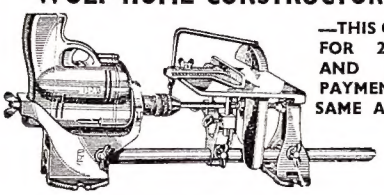

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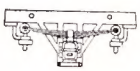

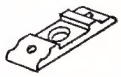

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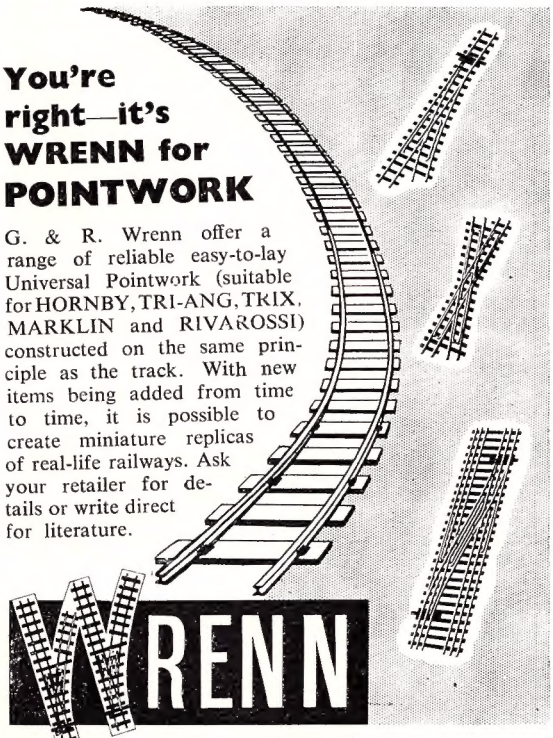

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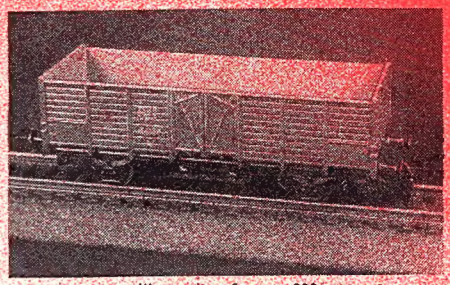

Illustration of wagon 330

300	Low-sided gondola	18/8
310	Flat car with staked sides	19/10
315	As above but with brakeman's cabin	24/6
320	Low-sided gondola with end platform	19/3
330	Open goods wagon	19/3
335	Open goods wagon with brakeman's cabin ...	23/4
340	Goods van with end platform	22/9
345	Goods van with brakeman's cabin	29/3

All these wagons are 4-wheel type.

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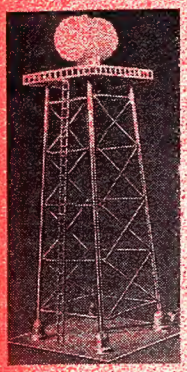

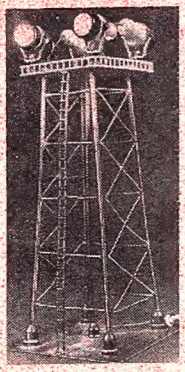

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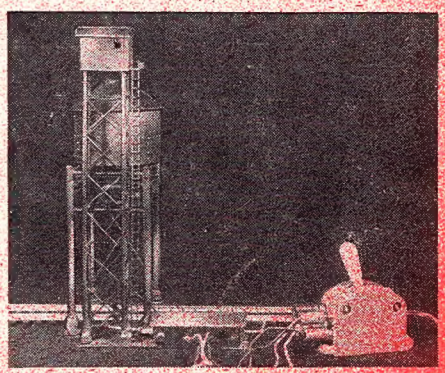

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